Non-proliferation in areas of limited statehood: the contribution of international regimes to controlling mass destruction capacities in war and crisis zones

Meier, Oliver

Veröffentlichungsversion / Published Version
Forschungsbericht / research report

Zur Verfügung gestellt in Kooperation mit / provided in cooperation with:
Stiftung Wissenschaft und Politik (SWP)

SWP Research Paper
Stiftung Wissenschaft und Politik
German Institute for International
and Security Affairs

Oliver Meier

Non-Proliferation in Areas of Limited Statehood

The Contribution of International Regimes to Controlling Mass Destruction Capacities in War and Crisis Zones

RP 9
July 2017
Berlin

SWP Research Papers are
peer reviewed by senior
researchers and the execu-
tive board of the Institute.
They reflect the views of
the author(s).

SWP
Stiftung Wissenschaft
und Politik
German Institute
for International
and Security Affairs

Ludwigkirchplatz 3–4
10719 Berlin
Germany
Phone +49 30 880 07-0
Fax +49 30 880 07-100
www.swp-berlin.org
swp@swp-berlin.org

ISSN 1863-1053

Translation by Tom Genrich

(Updated and revised English
version of SWP-Studie 9/2017)

Table of Contents

Dr. Oliver Meier is Deputy Head of SWP's International Security Division

Non-Proliferation in Areas of Limited Statehood: The Contribution of International Regimes to Controlling Mass Destruction Capacities in War and Crisis Zones

Non-proliferation regimes for nuclear, biological and chemical weapons face many challenges. Treaty violations by governments that aim to develop WMD are the most serious problem. International law provides procedures for dealing with such breaches of a treaty. Such noncompliance procedures have for example already been used against North Korea and Iran. Increasingly, however, the implementation of rules to control WMD in areas of limited statehood has demonstrated their shortcomings. Striking examples are Syria and Iraq, where chemical weapons have been used very recently. Existing rules and procedures are insufficient to tackle the challenges of controlling capacities to produce or use nuclear, biological or chemical weapons in areas of limited statehood, even though this is a particularly urgent task.

In areas of limited statehood, WMD control – meaning all the measures aimed at WMD disarmament and non-proliferation – will remain a challenge. The worldwide trend towards the disintegration of states or loss of statehood, the increase of non-international armed conflicts, the emergence of transnational terrorist groups and the proliferation of sensitive technologies are formidable challenges for the international community. These problems are accumulating in the Middle East and South and East Asia, in particular.

Controlling WMD in areas of crisis and war is a key challenge for Germany's foreign and security policy. If such weapons get into the hands of terrorist groups, there is a risk of WMD attacks in Europe. Biological, chemical and nuclear weapons also pose a threat to people living in war and crisis regions. The existence of such potentials complicates political solutions for regional conflicts. Finally, from a European perspective it is also urgent to strengthen the international order by adjusting multilateral non-proliferation regimes to crisis developments.

The experiences since 2003 of controlling WMD in Iraq, Libya and Syria have been mixed. In Iraq and Libya, remaining chemical weapons and precursors became a proliferation risk because the international community acted too slowly. The process of eliminating Syria's chemical weapons, begun in 2013, was

swift but remains incomplete. The danger of these weapons falling into the hands of terrorist groups is far from over. Government forces and the terrorist militia "Islamic State" continue to use chemical weapons and threaten populations. Criminal prosecution of these war crimes remains out of sight.

However, at least Syria's most dangerous chemical weapons have been removed from Syria and eliminated in a concerted multilateral operation. The international community is investigating the continued chemical attacks in Syria and has – for the first time ever – in a few cases identified those responsible for such atrocities.

These encouraging results were possible because the Syrian government under threat of military intervention acceded to the Chemical Weapons Convention and cooperated with international organisations. Moreover, relevant great powers – especially Russia and the United States – as well as several international organisations collaborated on inspecting, securing, transporting and destroying Syria's declared chemical weapons.

If those successes are to be repeated, some of the rules and procedures of non-proliferation regimes should be adapted to the particular conditions typical of areas of limited statehood. In fragile or collapsing states, central governments – which as signatories to a treaty are responsible for its implementation – have no (or at best limited) control over their own territory. The state's leaders may be unwilling and/or unable to comply with the treaty. Acting in crisis areas also requires special security and logistical measures. New procedures for acquiring relevant information will also have to be found. Communicating and cooperating with non-state actors on the ground often poses an additional political hurdle. Finally, existing rules for eliminating weapon potentials or investigating the alleged use of WMD need to be adapted, or new procedures need to be created.

The Organisation for the Prohibition of Chemical Weapons (OPCW) has played a pivotal role in eliminating Syrian chemical warfare agents outside the country, despite the unfavourable conditions of civil war. Multilateral treaties – such as the 1925 Geneva Protocol for the Prohibition of the Use of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare, the 1972 Biological Weapons Convention (BWC), the 1968 nuclear Non-Proliferation Treaty (NPT) and the 1993 Chemical Weapons Convention (CWC) – are fundamental normative, political and practical reference points for controlling WMD, even and especially in areas of limited statehood.

A reform of inter-state regimes should follow the motto "As few rules as necessary, as much preparation as possible". Four issues are essential. First, prevention must be improved by securing as early as possible weapons or sensitive technologies. Second, planning should be adapted to crisis scenarios. Third, member states of international organisations dealing with WMD non-proliferation issues should create the conditions for interacting with relevant non-state actors in war and crisis zones. Fourth, the central role of the United Nations Security Council in controlling WMD should be strengthened and the Council should also be tied more closely to multilateral non-proliferation regimes.

These measures could help to better prepare the international community for future challenges in controlling WMD. They would also increase the effectiveness of international regulatory institutions. They would thus dovetail with Germany's foreign policy agenda, which focuses on strong and resilient international organisations, especially under conditions of permanent crisis. Over the past few years, the German federal government has already provided much and varied support for disarmament operations. In the future, it will also be vital that Berlin more forcefully takes the political initiative to implement some of the previously mentioned reforms. To this end, Germany will need to be more actively seeking like-minded partners in the EU and G20.

Controlling WMD in Areas of Limited Statehood

Implementing regimes for controlling nuclear, biological and chemical weapons is frequently particularly difficult in places where proliferation risks are high. Under conditions of international disorder, WMD or the capacities for their production are increasingly found in areas of limited statehood.

In such areas of limited statehood, the central government may have the authority to govern – but in reality it exerts little or no control. Outside the OECD, only few states fulfil the (Western) ideal of the consolidated nation-state, which has full control over its territory as well as the means to comprehensively implement international rules.[1] And there is a continuing trend towards weakened or failed states. In 2015, the OECD classified about 50 states as fragile. Around 20 percent of the world's population live in such countries.[2]

This is a problematic development for effective worldwide WMD control because multilateral treaties are designed so that the central governments of states parties translate the prohibitions and obligations contained in such treaties into national law. Governments are also obliged to enable administration, police and judiciary to apply and monitor implementation of national implementing legislation, so that violations can – to the degree possible – be detected, pursued and penalised.

In areas of limited statehood, this model for implementing international agreements at the national level does not work. Some forms of "governance" practised there can fulfil a number of political functions.[3] But these functions cannot include control over WMD because the groups acting in such territories do not possess the legal or political legitimacy to own or operate such capacities.

As long as areas of limited statehood do not pose a proliferation risk, governments or institutions dealing with non-proliferation have ignored or tolerated the ambivalent status of such regions. At times, they have resorted to pragmatic solutions to establish a certain degree of control in such regions, even if their legal status remained disputed.

Two trends, however, have moved the issue of WMD in areas of limited statehood further towards the top of the political agenda. First, as a result of globalisation, more and more actors in more and more countries have access to relevant dual-use technologies.[4] Second, the number of armed conflicts is rising. Whilst in 2010 there had been 80 such conflicts globally, in 2015 that number rose to 147. Most worrying (given the implications of a loss of state control) is the particularly sharp increase in non-state actors participating in armed conflicts.[5] Many of these armed conflicts occur in regions where WMD or WMD capacities are present. Transnational terrorist groups with a declared interest in possessing WMD aggravate the problem.

It is therefore no coincidence that efforts to eliminate WMD and investigate alleged uses increasingly target nations which are in a state of civil war or other armed conflict, including recently Iraq, Libya and Syria.

In the context of this report, problems of controlling WMD capacities in areas of limited statehood are discussed when they arise under conditions of war or crisis. It is beyond the scope of this study to comprehensively examine the implementation of international regimes in all areas not fully under state control, in-

1 Cf. Stephen D. Krasner and Thomas Risse, "External Actors, State-Building, and Service Provision in Areas of Limited Statehood: Introduction", *Governance* 27, no. 4 (2014): 545–67; Thomas Risse, "*Governance under Limited Sovereignty*", in *Back to Basics: State Power in a Contemporary World, ed. Martha Finnemore and Judith Goldstein (New York, 2013), 78–104.*

2 Figures taken from OECD, *States of Fragility 2015. Meeting Post-2015 Ambitions* (Paris, 2015), 31.

3 Cf. Tobias Debiel, Stephan Klingebiel, Andreas Mehler et al., *Zwischen Ignorieren und Intervenieren. Strategien und Dilemmata externer Akteure in fragilen Staaten*, Policy Paper no. 25 (Bonn: Stiftung Entwicklung und Frieden, January 2005), http://inef.uni-due.de/page/documents/pp_23_de.pdf (accessed 2 March 2017).

4 Cf. Oliver Meier, "Dual-use Technology Transfers and the Legitimacy of Non-proliferation Regimes", in *Technology Transfers and Non-Proliferation. Between Control and Cooperation*, ed. Oliver Meier (New York et al., 2014), 3–21.

5 In 2010 the *Uppsala Conflict Data Program* (UCDP) recorded 28 non-state armed conflicts; in 2015 there were 71. Casualty figures of armed conflicts have almost quadrupled between 2010 (30,700) and 2015 (118,400): see UCDP, *Uppsala Conflict Data Program*, Uppsala, http://ucdp.uu.se/#/exploratory (accessed 25 November 2016).

cluding in those regions where no violent conflicts or risks of such conflicts exist.

Controlling WMD in crisis and war environments is important for several reasons. First and foremost, the growing risk of WMD use must be reduced in order to protect local populations. Second, terrorist organisations must be prevented from obtaining such weapons. Internationally active groups could use such weapons for attacks also in Europe.[6] Third, such control efforts can help to strengthen international order by further developing multilateral disarmament regimes. To uphold international norms against WMD, violations must have consequences, no matter where they occur. The organisations in charge of implementing these rules – especially the International Atomic Energy Agency (IAEA) and the Organisation for the Prohibition of Chemical Weapons (OPCW), but also the United Nations (UN) Security Council – will have to live up to the challenges that arise in a world increasingly in disarray. If they are unable to tackle these challenges, the regimes (as well as the norms embedded in them) run the long-term risk of losing political support and thus their relevance.

As a middle power, Germany is committed to the search for peaceful solutions to regional conflicts. Berlin sees multilateral treaties and mechanisms for disarmament and arms control as "an indispensable contribution to maintaining peace and security"[7] as well as the international order. These premises make problems with controlling WMD in areas of limited statehood directly relevant for Germany's foreign policy. To sum up: if "crisis is becoming a permanent condition",[8] the question arises how the established and proven arms control structures can be adapted to meet the new challenges of decreasing statehood and increasing conflicts.

The central question of this study is therefore: How can the ability of international regimes to control nuclear, biological and chemical mass destruction capacities in areas of limited statehood be improved?

Analysing the Risk

In an acute crisis, there are two crucial tasks from the perspective of non-proliferation policy. The immediate risks of use or proliferation of nuclear, biological, chemical or radiological weapons must be minimised by securing, removing and destroying them.[9] Second, if applicable, any allegations of WMD use must be resolved. Routine tasks, such as the verification of non-production of prohibited items, can normally only be carried out after the crisis has ended and the government's capacity to exert control over its territory has been restored.

The greatest challenges in this regard can currently be found in the Middle East. In Asia, too, a trend towards the loss of control over mass destruction technologies is observable.

This study is chiefly concerned with issues of chemical weapons disarmament, since these are currently the focus of non-proliferation efforts. In Iraq, Libya and Syria, efforts are being made or have been made to control chemical weapons programmes. However, many of the challenges described below also apply *mutatis mutandis* to nuclear and biological weapons as well as relevant sensitive technologies. It has to be taken into account that WMD control regimes differ with regard to their scope and institutional arrangements. This study does not examine problems of controlling conventional weapons. Conventional weapons have a lesser potential for destruction than WMD and there is a lack of norms, rules, procedures and institutions that could form the basis of control efforts for them.

In areas of limited statehood, two factors complicate the implementation of rules and procedures for WMD control. First, the political conditions for taking action in such areas must be in place. As a rule, the central government must at the very least tolerate disarmament operations or investigations of alleged use. Relevant great powers and international organisations

6 Moreover, such attacks can be carried out using simple chemicals that do not issue from state programmes: see William M. Alley and Jessica L. Jones, "An Analysis of the Threat of Malicious Chemical Use by Nonstate Actors: Questioning the State-based Approach to Chemical Nonproliferation", *The Nonproliferation Review* 22, no. 3–4 (2015): 301–19.

7 German Federal Foreign Office, *Review 2014 – A Fresh Look at Foreign Policy* (Berlin, 2015), 45, <https://www.yumpu.com/en/document/download/37355057/41950-2259c-f1521-4fb59-25a9d-9b0ea-eafd8-214c9> (accessed 13 July 2017).

8 Ibid., 8.

9 A research project funded by the US Department of Defense has identified three future challenges in eliminating WMD: 1. the danger emanating from states with active WMD programmes (especially North Korea); 2. the difficulty of controlling non-state actors "that are likely to be active within failed or fragile states or ungoverned territories"; 3. the problem of incomplete disarmament of known WMD programmes – see Philipp C. Bleek, Chen Kane and Joshua H. Pollack, "Elimination of Weapons of Mass Destruction: Lessons from the Last Quarter-century", *The Nonproliferation Review* 23, no. 1–2 (2016): 15–23, 16.

have to be willing to cooperate. Second, existing rules and procedure for verifying and implementing disarmament and non-proliferation obligations must be adapted to the specific conditions that apply in crisis areas. Logistical and security challenges, procedures for information gathering, and funding requirements can differ in the context of fragile states. Additionally, it may be necessary to deal with non-state actors. There may be a variety of such actors, ranging from opposition groups to armed militias and warlords, which may either control a territory over an extended period or use an area of limited statehood as a temporary refuge.

This study, which is primarily based on analysing the relevant secondary literature and primary sources,[10] focuses on the practical problems of implementing WMD disarmament and non-proliferation obligations in crisis areas. The political context within which disarmament operations take place is taken into consideration. However, any wider discussion of the politics involved, such as an analysis of the great powers' interests in relevant areas, is beyond the scope of this study.

10 From 2015 to early 2017 interviews on background were conducted with decision-makers in Berlin and The Hague. I wish to thank several colleagues for providing comments on the design of this study and specific chapters. Many thanks go to Jonathan Trautmann and Sira Cordes for help with research. Any remaining errors are my responsibility alone.

Political Support and Cooperation

With few exceptions,[11] arms control is based on the traditional intergovernmental model underpinning the international order. This stipulates that states parties to multilateral agreements must implement treaty provisions in their entire territory. For international organisations, central governments are the competent and only legitimate partners in implementing these agreements under international law.

Routine measures to verify member states' treaty compliance rarely make the headlines. Since the entry into force of the Chemical Weapons Convention (CWC) in 1997, the OPCW has carried out over 6,000 routine inspections.[12] In 2015 alone, the IAEA carried out about 2,000 routine safeguards inspections. But these activities did not attract significant political attention.[13] By contrast, efforts to control WMD in areas of limited statehood often take place in geopolitical hotspots and thus under close public and media scrutiny. Three questions must be answered before control measures can be carried out in such a highly politicised context. Does the central government back the mission? Do relevant great powers support the mission? How good is the cooperation between international organisations?

The Role of Central Government

As a rule, international non-proliferation regimes can only be implemented where a state party holds the monopoly on power and is willing to open up relevant territory to international verification measures. This restriction is unproblematic insofar as "almost all nations observe almost all principles of international law and almost all of their obligations almost all of the time".[14] Arms control against a state's will has so far only occurred where that state had lost a war.[15]

The central government's official or at least tacit approval of on-site activities has up to now been a precondition for operations by international organisations in areas of limited statehood. However, it is a characteristic of such areas that the state party/parties lack the will and/or the ability to comply with their international obligations to control WMD. In such cases, disarmament and non-proliferation efforts can take place in grey areas of control.

Three main scenarios are possible. First, a government may lose control over parts of its territory through disintegration of the state or as part of a military confrontation. This development leaves it too weak to establish the conditions for verification of the relevant area or facility. For instance, after 2011 the recently-formed Libyan national government was unable to provide international inspectors safe access to the remaining chemical weapons in the country.[16]

In the second scenario, the central government may (nominally) exert control and declare its readiness to cooperate but its actual willingness to support international control efforts is limited. For example, a gov-

11 Geneva Call, an NGO based in Switzerland, works to persuade armed non-state actors (ANSAs) to respect agreements banning the use of anti-personnel mines, protecting children from the consequences of armed conflicts, and prohibiting sexual violence in armed conflicts. To date (July 2017), 59 ANSAs have signed deeds of commitment: see Geneva Call, "Armed Non-State Actors", *genevacall.org* (online), https://genevacall.org/how-we-work/armed-non-state-actors/ (accessed 11 July 2017).

12 Organisation for the Prohibition of Chemical Weapons (OPCW), *Three Types of Inspections*, Fact Sheet 5 (The Hague, March 2016), http://www.opcw.org/fileadmin/OPCW/Fact_Sheets/English/Fact_Sheet_5_-_Inspections.pdf (accessed 31 March 2017).

13 International Atomic Energy Agency (IAEA), "*Safeguards in Practice*", *iaea.org* (online), http://www.iaea.org/topics/safeguards-in-practice (accessed 10 November 2016).

14 Louis Henkin quoted in Abram Chayes and Antonia Handler Chayes, "On Compliance", *International Organization* 47, no. 2 (Spring 1993): 175–205 (177).

15 For example, the arms limitations imposed on Germany in the Treaty of Versailles or the disarmament of Iraq's WMD by the United Nations Special Commission (UNSCOM) after Iraq had lost the 1991 Gulf War: see Jean P. Zanders, "Hybrid Disarmament Framework and Slowdowns", *The Trench* (online), 8 February 2014, http://www.the-trench.org/hybrid-disarmament-framework/ (accessed 10 November 2016).

16 Cf. Patrick Terrell, Katharine Hagen and Ted A. Ryba Jr., "Eliminating Libya's WMD Programs: Creating a Cooperative Situation", *The Nonproliferation Review* 23, no. 1–2 (2016): 185–96.

ernment may cite security concerns in order to suspend or terminate cooperation with a disarmament agency. For external actors it is then often difficult to gauge whether such concerns are real or simply a pretext.[17] This is compounded by the fact that external actors tend to believe a cooperative (or apparently cooperative) partner when they need their cooperation.[18] The situation becomes even more complicated when the possessor state leverages the need to approve a WMD control mission as a means to achieve secondary objectives.[19]

Third, grey areas can develop if several governments lay claim to the same territory. For example, after Russia's annexation of the Crimea in spring 2014, Ukraine asked the IAEA to protect a research reactor in Sevastopol from being seized by Russia.[20] Kiev also demanded that the IAEA continue to inspect the reactor according to the safeguards procedures established for Ukraine, whilst Moscow offered to carry out nuclear safeguards under the rules valid for Russia.[21] As a consequence, the IAEA has not inspected the facility since the Russian occupation. In the case of Taiwan, it was possible to bypass such status issues and thus assure the inspection of nuclear facilities through a pragmatic approach.[22]

Hybrid scenarios which contain elements of several of these scenarios would be even more complicated.

The Support of the Great Powers

Over the past two decades, the international community has used three strategies to motivate uncooperative states to collaborate with efforts of WMD control. It has appealed to the self-interest of the states in question, created incentives, and threatened to impose (and actually imposed) sanctions.[23]

With the latter two strategies, it is especially crucial that politically, militarily and financially powerful nations support disarmament missions. Such countries can provide incentives and disincentives to induce sceptical or reluctant actors to cooperate. Thus, the United States' threat of military strikes against Syria in 2013 presumably helped to encourage Damascus to accede to the CWC and agree to disclose and eliminate chemical weapons stockpiles. Ten years earlier, in 2003, the United Kingdom and United States had held out to Muhammad Gaddafi the prospect of relaxing Libya's international isolation if he agreed to disclose Libya's programmes for producing WMD and to eliminate these weapons. After the invasion of Iraq, the threat of US military action against Libya was palpable.[24] As a result, Gaddafi disclosed his chemical and nuclear weapons programmes.

Since the five permanent Security Council members are (or were) WMD possessor states, they often possess the necessary experience and knowledge to deal with such capabilities. Their consent is also a prerequisite for any Security Council mandate authorising a disarmament mission.

Russian and US cooperation in the elimination of Syrian chemical weapons is a good example of the positive role great powers can play. Experts from both countries had begun discussions on the disclosure and destruction of Syrian chemical weapons about a year before the 14 September 2013 Russian-US framework

17 An example is the removal of Syrian chemical weapons from a storage facility in the port of Latakia, which was delayed for months. There was great uncertainty over whether or not Damascus was using security concerns as a pretext to retain control over these weapons: see Louis Charbonneau, "Syria Chemical Arms Destruction Deadline Won't Be Met – U.N.", *Reuters*, 29 May 2014, http://uk.reuters.com/article/2014/05/29/uk-syria-crisis-chemicalweapons-idUKKBN0E82F320140529 (accessed 30 May 2014).

18 After 2003, there was a widespread belief that Gaddafi was prepared to comprehensively eliminate Libya's chemical weapons. This assumption turned out to be wrong: see Nathan E. Busch and Joseph F. Pilat, "Disarming Libya? A Reassessment after the Arab Spring", in: *International Affairs* 89, no. 2 (2013): 451–75.

19 On this point, see The Editors, "Diplomatic Strategies for Eliminating WMD", *The Nonproliferation Review* 23, no. 1–2 (2016): 49–59 (54–57).

20 Michael Mariotte, "*Russia Seizes Ukrainian Nuclear University/Research Reactor in Crimea*", *GreenWorld* (online), 8 April 2014, http://safeenergy.org/2014/04/08/russia-seizes-ukrainian-reactor (accessed 19 May 2014).

21 Nuclear weapon states are subject to less stringent verification obligations than non-nuclear weapon states.

22 In 1971, Beijing assumed sole representation of China (including Taiwan) at the United Nations. After the People's Republic of China joined the IAEA in 1983, it became the organisation's sole point of contact, including for carrying out safeguards in Taiwan. However, since 1972 IAEA safeguards of all relevant nuclear installations in Taiwan had already been carried out informally on the basis of a trilateral agreement between the IAEA, Taiwan and the United States: see David Fischer, *History of the International Atomic Energy Agency. The First Forty Years* (Vienna, 1997), 93, 111, 133.

23 On this point, see The Editors, "Diplomatic Strategies" (see note 19), 49–59.

24 Jonathan B. Tucker, "The Rollback of Libya's Chemical Weapons Program", *The Nonproliferation Review* 16, no. 3 (2009): 363–84.

was agreed.[25] This bilateral agreement, concluded in Geneva, anticipated many of the practical problems that would arise during the process of verifying, securing and destroying the weapons stockpile. The framework proposed solutions and prepared decisions to be taken by international organisations.

Great power cooperation improves the political conditions for the inclusion of third states. The latter's participation is important because they can bring further capacities for WMD control and elimination to the table. Third states can also increase the political legitimacy of such operations by countering the impression that disarmament is a great power diktat. In the case of Syria, five other nations contributed naval assets to support chemical weapons elimination by the United States and Russia.[26]

The United States as a global power has significant political influence and commands unique military and technical capabilities. Washington's political and practical involvement is therefore a necessary (albeit not always sufficient) condition for the success of international efforts to control WMD in crisis zones.[27]

Cooperation between International Organisations

For endeavours to control WMD in areas of limited statehood to be successful, it is necessary that international organisations work very closely together and combine their complementary abilities and expertise.[28] Such cooperation can be based on existing framework agreements or it can be organised in an ad hoc manner, in the context of case-specific cooperation arrangements. The IAEA and OPCW are so-called UN "related organisations" but they can directly interact with the Security Council and General Assembly.[29] Their relationships with the UN are set out in separate agreements, which are, for example, intended to guarantee their staff the safe conduct to an inspected state party (through a UN laissez-passer).[30]

From October 2013 to September 2014, the UN and OPCW worked together as equal partners in the Joint Mission on the elimination of chemical weapons in Syria.[31] Since August 2015, they have likewise been on an equal footing within the Joint Investigative Mechanism (JIM), which tries to identify those responsible for using chemical weapons. During the mission to eliminate Syria's chemical weapons, the OPCW's collaboration with a number of other international organisations went far beyond routine operations and was arranged on the basis of a network of agreements and memoranda of understanding.[32]

International organisations compete for resources, tasks and attention. This can cause friction, as it occasionally did during the joint action to control WMD,[33]

25 OPCW, *Framework for Elimination of Syrian Chemical Weapons. Joint Paper by the Russian Federation and the United States of America*, EC-M-33/NAT.1 (The Hague, 17 September 2013), http://www.opcw.org/fileadmin/OPCW/EC/M-33/ecm33nat01_e_.pdf (accessed 31 March 2017).

26 China, Denmark, Finland, the UK and Norway: see OPCW-UN Joint Mission in Syria, *Status of Contributions to the OPCW-UN Joint Mission in Syria*, 17 February 2014, http://opcw.unmissions.org/LinkClick.aspx?fileticket=Yw0vVMzJwvw=&tabid=205 (accessed 2 March 2017).

27 On the capacity of the US security agencies to innovate in response to proliferation crises, see e.g. Andy Weber and Christine L. Parthemore, "Innovation in Countering Weapons of Mass Destruction", in: *Arms Control Today* 46, no. 6 (July/August 2015): 23–26; see also Rebecca Hersman, "Strategic Challenges to WMD Elimination", in: *The Nonproliferation Review* 23, no. 1–2 (2016): 31–47 (44–46).

28 See Bleek et al., "Elimination of Weapons of Mass Destruction" (see note 9), 19.

29 Both organisations can thus refer serious violations of IAEA or CWC provisions directly to the Security Council: see Dirk Schriefer, "Die IAEA im System der Vereinten Nationen", in *50 Jahre Internationale Atomenergie-Organisation IAEA. Ein Wirken für Frieden und Sicherheit im nuklearen Zeitalter*, ed. Dirk Schriefer, Walter Sandtner and Wolfgang Rudischhauser, 1st ed. (Baden-Baden, 2007), 149–53 (151).

30 See e.g. Sheel K. Sharma, "The IAEA and the UN Family: Networks of Nuclear Co-operation", in: *IAEA Bulletin*, no. 3 (1995): 10–15, http://www.iaea.org/sites/default/files/publications/magazines/bulletin/bull37-3/37305381015.pdf (accessed 2 March 2017); Walter Krutzsch and Treasa Dunworth, "Article VIII: The Organization", in *The Chemical Weapons Convention. A Commentary*, ed. Walter Krutzsch, Eric Myjer and Ralf Trapp, Oxford Commentaries on International Law, 1st ed. (Oxford, 2014), 235–96 (279).

31 Information and background can be found at http://opcw.unmissions.org.

32 The OPCW cooperated with the UN Office for Disarmament Affairs (UNODA), UN Office of Legal Affairs, UN Department of Safety and Security (UNDSS), UN Office for Project Services (UNOPS) and the World Health Organisation (WHO), among others: see Ralf Trapp, *Lessons Learned from the OPCW Mission in Syria. Report Submitted to the Director-General of the Technical Secretariat of the OPCW*, (Chessenaz, France, 16 December 2015), 2, http://www.opcw.org/fileadmin/OPCW/PDF/Lessons_learned_from_the_OPCW_Mission_in_Syria.pdf (accessed 2 March 2017).

33 For instance, there were differences of opinion between the leader of the UN-OPCW Joint Mission and the OPCW's Director-General regarding control over the mission: see Jean P. Zanders, "Üzümcü: 'After Syria I Do Not See Any Country Able to Use Chemical Weapons Anymore'", *The Trench* (online),

in particular when several organisations handled the same problem simultaneously. For example, at certain times after 2012, several organisations were engaged in independent but parallel investigations into allegations of chemical weapons use in Syria. Different mandates and investigative methods, and a lack of coordination over publishing enquiry results, resulted in diverging statements on the extent of chemical weapons use and the identity of its perpetrators. Such contradictory reports can undermine the legitimacy of international investigations.

For instance, on 4 June 2013 the Human Rights Council's Commission of Inquiry on Syria published a report claiming that in at least four cases limited amounts of toxic chemicals in Syria had been released.[34] At this point, Syria was still refusing UN and OPCW inspectors access to the country. As a consequence, Åke Sellstrom, head of the team appointed under the UN Secretary-General's mechanism for investigating alleged chemical weapon attacks, distanced himself from the Human Rights Council report.

Investigations of chemical weapons use by individual nations (or their surrogates) can complicate international efforts to resolve allegations, too. Such unilateral investigations do not usually meet the high standards of international inspections in terms of methodology, transparency and verifiability. Governments may carry them out deliberately to exert or deflect political pressure or to sow doubts about the results of international investigations. Russia, for example, has conducted several such investigations.[35] However, the United States and other Western states have also attempted to influence discussions of chemical weapons deployments by publishing their own analyses.[36]

17 November 2014, http://www.the-trench.org/uzumcu-interview/ (accessed 2 March 2017).

34 It was particularly problematic that the chair of the Human Rights Council's Commission of Inquiry on Syria, Carla del Ponte, made a statement to this effect before the investigation report of her institution had even been published: see Louis Charbonneau, "Syria Chemical Weapons: U.N. Warns of 'Mounting Reports'", *HuffPost* (online), 22 May 2013, http://www.huffingtonpost.com/2013/05/22/syria-chemical-weapons-un_n_3320198.html; S. Johnson, "*UN's Carla Del Ponte Massively Undermines Investigation with 'Syrian Rebels Used Sarin' Claim*", *CBRNe World News* (online), 6 May 2013, http://www.cbrneworld.com/news/uns_carla_del_ponte_massively_undermines_investigation_with_syrian_rebels_u#ixzz4FVMBn7WL (accessed 2 March 2017).

35 For instance, Moscow independently investigated the alleged chemical weapon attacks on Khan al-Assal in March 2013, and then made its report partially available to UN Security Council members in July 2013: AFP, "*UN Chemical Inquiry Hopes Hit by Fall of Syrian Town*", *Hurriyet Daily News* (online), 24 July 2013, http://www.hurriyetdailynews.com/un-chemical-inquiry-hopes-hit-by-fall-of-syrian-town.aspx?pageID=238&nid=51301. In late 2016, Russia also declared in connection with the battle for Aleppo that its own investigation had proven chemical weapons use by non-state actors: "Exclusive: Sputnik Reports From Terrorist Chemical Factory in Aleppo", *Sputnik International* (online), 29 December 2016, https://sputniknews.com/middleeast/201612291049117057-aleppo-chemical-weapons-production/ (both accessed 2 March 2017).

36 Shortly before the publication of the UN report on the chemical attacks of 21 August 2013, the US State Department published its own assessment based on US intelligence: see e.g. David Jolly, Scott Sayare and Rick Gladstone, *U.S. Releases Detailed Intelligence on Syrian Chemical Attack* (Paris, 30 August 2013), http://www.nytimes.com/2013/08/31/world/middleeast/syria.html (accessed 29 November 2016).

Controlling WMD in Areas of Limited Statehood

"I think 'normal' doesn't apply under the current conditions."[37]

For missions in areas of limited statehood, the rules and procedures set out in non-proliferation regimes have to be adapted to conditions of acute crisis. This process often takes place under great time pressure. Occasionally, this requires the relaxation or the tightening of standards. Such a politically delicate decision is further complicated by the question of who has the legitimacy to take such decisions.[38]

Practical Prerequisites: Logistics and Security

Frequently, with joint disarmament projects in areas of limited statehood there is either lack a counterpart in the target state or such a partner is unable or unwilling to cooperate. Such an uncooperative environment requires additional logistical efforts from non-proliferation organisations.

The transport of personnel and equipment into the zone of operations cannot be conducted entirely by commercial providers, as would often be the case in routine operations. It is thus advantageous if the mission can build on the long-term presence of inspectors on-site. From such an operational base in the mission area or a neighbouring country, staff can keep in touch with the central government, arrange inspections and carry out other verification activities.[39] Communications in the crisis zone as well as between headquarters and staff deployed in the field must be tap–proof. Sensitive information should also be compartmentalised.[40]

The first priority is to assure the safety of the staff in area of operation, as the following examples show. When UN inspectors attempted, three days after the event, to clarify the circumstances of the devastating chemical weapons attacks on 21 August 2013, they came under fire in rebel-controlled territory.[41] And on 27 May 2014, members of the OPCW fact-finding mission went to investigate an alleged chlorine gas attack by Syrian government troops on the opposition-held city of Hama. One of their vehicles was damaged by an explosive device; two other cars were briefly detained by the rebels. In both cases, the inspections had been cleared in advance with the government and the opposition.[42]

Clarifying the legal conditions for a mission in a crisis zone starts with arranging the appropriate insurance and protection of staff and their families.[43] Additionally, the OPCW only sent volunteers as inspectors to Syria. The OPCW preferred staff with relevant military training and knowledge of the host country's language and culture.[44]

Since disarmament organisations have no armed personnel for missions in crisis zones, they collaborate with professional security providers, for instance from the United Nations. These providers can offer security analyses, brief staff on the ground on the security situation, prepare inspectors for their task, and try to

37 The Special Coordinator of the UN-OPCW Joint Mission, Sigrid Kaag, on 1 November 2013, in reply to the question whether the destruction of Syria's chemical weapons should not normally be carried out in the possessor state: see "*Interview: Head of OPCW-UN Team Awaits Next Steps on Destruction of Syria's Chemical Weapons", United Nations News Centre* (online), 1 November 2013 http://www.un.org/apps/news/story.asp?NewsID=46396#.WE8LUrnNj4x (accessed 12 December 2016).
38 See Trapp, *Lessons Learned* (see note 32), 15.
39 The activities to disarm Syria's chemical weapons, for example, relied on an operational base in Beirut, an operations centre in Jordan and an OPCW liaison bureau in Damascus: see ibid., 20.
40 Cf. ibid., 13.
41 The mission leader later reported that they had interpreted the shots as a warning signal that was only to be expected and therefore continued with their investigation: see "Modern Warfare. Interview with Åke Sellstrom, Chief UN Weapons Inspector in Syria", *CBRNe World*, (February 2014), 8–13 (9), http://www.cbrneworld.com/_uploads/download_magazines/Sellstrom_Feb_2014_v2.pdf (accessed 2 March 2017).
42 Only one of the inspectors was slightly hurt: see OPCW, *Security Incident Affects Syria Fact-Finding Mission* (The Hague, 27 May 2014), http://www.opcw.org/news/article/security-incident-affects-syria-fact-finding-mission/ (accessed 27 April 2017).
43 Cf. Trapp, *Lessons Learned* (see note 32), 11.
44 Cf. ibid., 8.

Table
Mechanisms for elimination and verification of Syria's chemical weapons programme and investigating alleged chemical weapons use in Syria

	Period	*Task*	*Mandate*
UN Secretary-General Mechanism	since 21 Mar 2013	Investigating alleged biological and chemical weapons use	UN General Assembly, Resolution 42/37 C (1987); UN Security Council, Resolution 620 (1988); decision of the UN Secretary-General
Routine OPCW verification	since 14 Sep 2013	Verifying compliance with CWC provisions	Syria's accession to CWC
UN-OPCW Joint Mission	16 Oct 2013 – 30 Sep 2014	Elimination of Syria's declared chemical weapons stocks	UN Security Council, Resolution 2118 (2013)
OPCW Fact Finding Mission (FFM)	since 29 Apr 2014	Investigating alleged chemical weapons use	Decision of the OPCW Director-General
OPCW Declaration Assessment Team (DAT)	since April 2014	Resolving "anomalies and discrepancies" in Syria's declarations	Decision of the OPCW Executive Council
UN-OPCW Joint Investigative Mechanism (JIM)	since 7 Aug 2015	Identifying those responsible for alleged chemical weapons use	UN Security Council, Resolutions 2235 (2015), ff.

protect them in the area of operations.[45] Under the Joint Investigative Mechanism, the UN Secretary-General and the OPCW Director-General jointly assess the security situation and decide whether to carry out an inspection.[46] To guarantee medical and emergency care on-site, it is usually necessary for the disarmament organisation to cooperate with the UN and local partners.

Expanding Existing Procedures: Gathering and Using Information

Normally, compliance with non-proliferation and disarmament obligations is verified on the basis of information provided by the state party to the treaty. This information is verified through on-site inspections, remote sensing technologies and – to a limited extent – open sources.[47]

However, these instruments are not very effective if the possessor state has no or limited access to the relevant areas or facilities. Moreover, governments involved in civil wars lack necessary administrative capacities and/or willingness to provide international organisations with relevant information.

Early on, the OPCW tightened and expanded obligations on Syria. After Syria had acceded to the CWC on 14 September 2013, the OPCW Executive Council and UN Security Council, referring to the urgency of the

45 In Libya, the *United Nations Support Mission* (UNSMIL) provided logistical support, security and communications for the OPCW inspectors: see United Nations Security Council, *Letter Dated 23 March 2012 from the Chairman of the Security Council Committee Established Pursuant to Resolution 1970 (2011) Concerning Libya Addressed to the President of the Security Council*, S/2012/178 (New York, 26 March 2012), 7, http://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/Libya%20S%202012%20178.pdf (accessed 6 May 2016).

46 OPCW, *Summary Report of the Work of the OPCW Fact-Finding Mission in Syria Covering the Period from 3 to 31 May 2014*, Note by the Technical Secretariat, S/1191/2014 (16 June 2014), 6, http://www.opcw.org/fileadmin/OPCW/S_series/2014/en/s-1191-2014_e_.pdf (accessed 2 March 2017).

47 Cf. Oliver Meier and Iris Hunger, "'Open Sources' und Verifikation: Die Demokratisierung der Rüstungskontrolle?", in *Medien zwischen Krieg und Frieden*, ed. Ulrich Albrecht and Jörg Becker, 1st ed., Schriftenreihe der Arbeitsgemeinschaft für Friedens- und Konfliktforschung e.V., vol. 29 (Baden-Baden, 2002), 223–41.

situation, suspended the 30-day period which normally has to pass before the convention's provisions apply.[48] This amounted to a reinterpretation of the CWC. Syria submitted its first declaration even before it had become a CWC state party.[49]

The OPCW also obliged Syria to disclose more information than can normally be required from member states. For example, Damascus had to provide early declarations of its chemical weapons stockpiles (and their destruction) to minimise the risk of weapons being hidden.[50] Moreover, the OPCW demanded that Syria declare any research facilities (which normally are not declarable under the CWC) that were part of the chemical weapons programme.[51]

When running missions in crisis zones, disarmament organisations also use new instruments to acquire information. In Libya, the OPCW as early as 2011 started acquiring commercial satellite imagery for its verification activities. Since the OPCW only has limited capacities for analysing such imagery, it cooperated with a number of other international organisations.[52] The OPCW thus expanded its own remote-sensing abilities. Since 2013, it has used such sources of information for other tasks as well. It also increasingly incorporated open sources into its verification activities before and during the mission in Syria.[53]

The development of new verification instruments is remarkable (see table, p. 15). In April 2014, only six months after Syria had submitted its first declaration to The Hague,[54] the OPCW sent a team of experts to Damascus to verify whether the Syrian declarations were correct and complete. This team developed into the Declaration Assessment Team (DAT), whose task was to identify "anomalies and discrepancies" in the Syrian declarations.[55] In about a dozen consultations with the government in Damascus, the OPCW team brought facts to light which clearly demonstrated that Syria's declarations about its own chemical weapons capacities were neither complete nor correct.[56]

As part of several corrections and additions to its own declarations, Syria submitted "late declarations" of a chemical weapons production facility as well as three research and development facilities.[57] Three years on, the process of verifying Syria's chemical weapons activities is still incomplete.[58] One of the significant discoveries made by the DAT is that Syria was working on ricin, a toxin whose misuse is prohibited under the BWC and the CWC.[59]

Syria claims that its incomplete and faulty declarations are the result of negligence and a lack of administrative capacities. Russia, as an ally of the Syrian government, takes a similar stance and argues that the

48 Cf. Walter Krutzsch, Eric Myjer and Ralf Trapp, "Issues Raised by the Accession of Syria to the Chemical Weapons Convention", in *The Chemical Weapons Convention*, ed. Krutzsch et al. (see note 30), 689–701 (690).

49 Ibid., 695.

50 Jean P. Zanders, "Using the Momentum of Syria's Chemical Weapons Dismantlement and Identifying Spill-Over Potentials. Discussion Note Prepared for: Academic Peace Orchestra – Middle East (APOME), 'Tackling the Middle East WMD/DVs Arsenals in the Context of Military Asymmetries Towards Zonal Disarmament', Berlin, 11–12 March 2015", *The Trench* (online), 13 March 2015, http://www.the-trench.org/me-spill-over-effects/ (accessed 2 March 2017).

51 Cf. Krutzsch et al., "Issues Raised" (see note 48), 696–670.

52 Importantly, it received support from the UN Institute for Training and Research (UNITAR) Operational Satellite Applications Programme (UNOSAT) and the EU: see Trapp, *Lessons Learned* (see note 32), 18. In February 2015 the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO) and the OPCW agreed to collaborate more closely on using such data: OPCW, *OPCW and CTBTO Heads Meet to Strengthen Cooperation* (The Hague, 23 February 2015), http://www.opcw.org/news/article/opcw-and-ctbto-heads-meet-to-strengthen-cooperation/ (accessed 27 April 2017).

53 Cf. Trapp, *Lessons Learned* (see note 32), 18.

54 See OPCW, *Syria Submits Its Initial Declaration and a General Plan of Destruction of Its Chemical Weapons Programme* (The Hague, 27 October 2013), http://www.opcw.org/news/article/syria-submits-its-initial-declaration-and-a-general-plan-of-destruction-of-its-chemical-weapons-pro/ (accessed 14 December 2016).

55 Cf. Trapp, *Lessons Learned* (see note 32), 8.

56 UN Security Council, *Letter Dated 26 October 2015 from the Secretary-General Addressed to the President of the Security Council*, S/2015/820 (New York, 26 October 2015), http://www.un.org/en/ga/search/view_doc.asp?symbol=S/2015/820 (accessed 21 January 2016).

57 Cf. Stockholm International Peace Research Institute (SIPRI), *SIPRI Yearbook 2015. Armaments, Disarmament and International Security* (Oxford, 2015), 583. Eleven of the 12 declared production facilities for chemical weapons have now been destroyed. The security situation has so far made it impossible to eliminate the twelfth: UN Security Council, *Letter Dated 26 October 2015* (see note 56).

58 For example, in October 2016 Syria reported to the OPCW that CWC-relevant activites had taken place at the Scientific Studies and Research Centre (SSRC), a state research and development facility. However, the OPCW continues to criticise this declaration as incomplete: see OPCW Executive Council, *Progress in the Elimination of the Syrian Chemical Weapons Programme. Note by the Director-General*, EC-84/DG.11 (The Hague, 24 January 2017), http://www.opcw.org/fileadmin/OPCW/EC/84/en/ec84dg11_e_.pdf (accessed 21 February 2017).

59 See Gunnar Jeremias, Mirko Himmel, Tomisha Bino and Jakob Hersch, "Spotlight on Syria's Biological Weapons", *Arms Control Wonk* (online), 8 February 2016, http://www.armscontrolwonk.com/archive/1201010/guest-post-spotlight-on-syrias-biological-weapons/ (accessed 2 March 2017).

"problem" of Syria's chemical weapons has been "solved" with the elimination of declared stocks. By contrast, others, especially Western states accuse Syria of deliberately concealing its chemical weapons arsenal.[60] In March 2016, the Executive Council of the OPCW tasked the Director-General with directly contacting the Syrian authorities to clarify the outstanding issues.[61]

Partner or Enemy? Dealing with Non-State Actors

Since 9/11 (if not before), the risk of a terrorist attack with radiological or nuclear weapons has been high on the list of possible threats. Terrorist groups can also threaten disarmament missions in areas of limited statehood. The so-called Islamic State has, over an extended period, controlled a territory in which technologies and experts that could be used to produce radiological, biological or chemical weapons are present. This is a first for a financially powerful, internationally active terrorist organisation.[62] The OPCW has confirmed that the IS is capable of producing mustard gas and has already used it in Iraq and Syria.[63]

Nevertheless, operations to control WMD in crisis zones can require a certain level of coordination or even cooperation with non-state groups. This is true, for example, when such groups control territories or facilities that are relevant for the disarmament mission. But even actors with no such governance role have the potential to disrupt and influence the security situation. Therefore, it may be necessary to seek an understanding with them. Because international disarmament regimes were primarily designed to deal with the threat of state-sponsored WMD programmes, they have no procedures for this kind of interaction.

Practically speaking, cooperation with non-state or substate actors is dependent on different prerequisites. First, the relevant actors must be interested in working with international non-proliferation organisations.[64] Opposition groups in control of a territory might want to prove that they have no interest in acquiring or possessing WMD. In 2015, for instance, the Kurdish regional government in Iraq backed an OPCW investigation of the chemical attacks on the Peshmerga[65] to prove that the IS was responsible for these crimes. Non-state actors may also be genuinely interested in eliminating WMD if they fear that such agents might fall into the hands of their enemies or might be released accidently or as a result of military engagements.

Second, the authorisation of the central government on whose territory the non-proliferation organisation intends to act has up to now been a precondition for such missions.[66] UN inspectors thus had to withdraw from their deployment base in late May 2013 when Damascus refused permission to investigate alleged chemical attacks on rebel-held territory.[67] To cite another example: although the Iraqi central government has no actual control over the Kurdish parts of Iraq, the OPCW in August 2015 was able to investigate chemical weapon use against the Peshmerga only after Baghdad had given its consent.[68]

60 See e.g. Alexandra Sims, "Isis Has 'Made and Deployed Chemical Weapons', Says US Intelligence Official", *Independent*, 10 February 2016, http://www.independent.co.uk/news/world/middle-east/isis-has-made-and-deployed-chemical-weapons-says-us-intelligence-official-a6864821.html (accessed 16 December 2016).

61 Cf. Daniel Horner, "*OPCW Pressing Syria on Declaration Gaps*", *Arms Control Association* (online), 29 March 2016, http://www.armscontrol.org/ACT/2016_04/News-Briefs/OPCW-Pressing-Syria-on-Declaration-Gaps (accessed 29 November 2016).

62 Cf. Chris Quillen, "The Islamic State's Evolving Chemical Arsenal", *Studies in Conflict & Terrorism 39, no. 11* (2016): 1019–1030.

63 OPCW, *Director-General Expresses Concern over Alleged Recent Chemical Attacks in Iraq* (The Hague, 23 March 2016), http://www.opcw.org/news/article/director-general-expresses-concern-over-alleged-recent-chemical-attacks-in-iraq/; Anthony Deutsch, "Exclusive: Samples Confirm Islamic State Used Mustard Gas in Iraq – Diplomat", *Reuters*, 23 March 2016, http://www.reuters.com/article/us-mideast-crisis-iraq-chemicalweapons-idUSKCN0VO1IC (both accessed 20 March 2017).

64 See e.g. Heike Krieger, *A Turn to Non-State Actors: Inducing Compliance with International Humanitarian Law in War-Torn Areas of Limited Statehood*, SFB-Governance Working Paper Series no. 62 (Berlin, June 2013), 18, http://www.sfb-governance.de/publikationen/working_papers/wp62/SFB-Governance-Working-Paper-62.pdf (accessed 20 March 2017).

65 See Julian E. Barnes, "Chemical Weapons Group Says It Is Open to Investigation of Iraq Mustard Agent Claims", *Wall Street Journal*, 14 August 2015, http://www.wsj.com/articles/chemical-weapons-agency-says-it-is-open-to-investigation-of-iraq-mustard-agent-claims-1439560750 (accessed 28 August 2015).

66 Cf. Krieger, *A Turn to Non-State Actors* (see note 64), 18–19.

67 See Chris Schneidmiller, "*Barred from Syria, Advance U.N. Chemical Weapons Investigators Retreat From Staging Point*", *NTI (online),* 23 May 2013, http://www.nti.org/gsn/article/barred-syria-advance-un-chemical-weapons-investigators-retreat-staging-point/ (accessed 20 March 2017).

68 See "Kurds Say Investigating Suspected Islamic State Chemical Attack in Iraq", *Reuters*, 26 February 2016, http://

Third, the practical conditions for cooperation have to be established. Contact between non-proliferation organisations and non-state actors can be politically delicate. But on the operational level, such interaction has generally been surprisingly straightforward. Cooperating with humanitarian NGOs active on the ground may be unproblematic from a legal perspective – and it may also be necessary, if only to inform such organisations about the risks associated with a disarmament operation.[69]

While investigating the chemical weapons attacks in the Ghouta area in August 2013 the UN negotiated several ceasefires with the Syrian government and rebel groups to facilitate inspections.[70] For the duration of their investigations, UN staff were under the care of the rebels, before returning to government-controlled territory.

The OPCW Fact Finding Mission (FFM), deployed in 2014 to clarify whether alleged chemical weapons attacks had taken place, also had to contact representatives of armed non-state groups, since all alleged chemical weapons attacks had occurred in areas outside the Syrian government's sphere of influence. The OPCW inspectors agreed procedures with these actors for investigating the incidents and in addition collaborated with a non-state organisation in selecting potential witnesses of the chemical weapons attacks.[71]

Fourth, non-state actors must possess a minimum of international legitimacy if they are to form part of a cooperative effort to control WMD. Terrorist groups such as the IS cannot be a partner in the verification and destruction of WMD. The governments involved in eliminating chemical weapons in Syria avoided a highly political debate over the legitimacy of non-state groups by not even referring to the topic in bodies such as the OPCW Executive Council.

Pay as You Go: Ad-Hoc Funding of Disarmament Missions

Fragile states are often not willing to pay for disarmament measures, even if this is a treaty obligation. Syria, for example, refused to pay for the destruction of its own chemical weapons. It only covered the costs of eliminating a few comparatively innocuous precursors, destroying chemical weapons production facilities, transporting weapons within the country, and some associated security measures.[72] Libya also made other nations pick up most of the expenses for eliminating and removing its chemical weapons.

Most of the time, the funds for such crisis operations have to be covered by voluntary extrabudgetary contributions, raised from interested member states. The UN and OPCW established trust funds in 2013 to support the UN-OPCW Joint Mission.[73] Financing mission in areas of limited statehood often requires substantial expenditures at short notice. For the acquisition of the equipment needed to eliminate Syria's chemical weapons, the OPCW added a sum to its budget that was twice the sum available in a regular annual procurement budget.[74] Given the importance of the disarmament mission for security policy, the OPCW has so far had no problems in raising the necessary funds, even though such money has frequently been slow to actually arrive. By September 2015, member states had allocated 50 million US dollars for the trust fund to finance the elimination Syria's chemical weapons.[75] Contributions in kind by states parties have been more problematic because such equipment often did not meet operational requirements.

www.reuters.com/article/us-mideast-crisis-kurds-chemical weapons-idUSKCN0VZ23B (accessed 20 March 2017).

69 See Trapp, *Lessons Learned* (see note 32).

70 United Nations General Assembly and Security Council, *Report of the United Nations Mission to Investigate Allegations of the Use of Chemical Weapons in the Syrian Arab Republic on the Alleged Use of Chemical Weapons in the Ghouta Area of Damascus on 21 August 2013*, *A/67/997–S/2013/553 (*New York, 16 September 2013*)*, 6, http://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/s_2013_553.pdf (accessed 20 March 2017); "Modern Warfare. Interview with Åke Sellstrom" (see note 41).

71 Cf. OPCW, *Summary Report* (see note 46), 3, 5.

72 See Philipp C. Bleek and Nicholas J. Kramer, "Eliminating Syria's Chemical Weapons: Implications for Addressing Nuclear, Biological, and Chemical Threats", *The Nonproliferation Review* 23, no. 1 1–2 (2016): 197–230 (212). It was initially unclear whether Syria would have to reimburse the costs that accrued: see Krutzsch et al., "Issues Raised" (see note 48), 698.

73 For an overview of the first funds, see OPCW-UN Joint Mission in Syria, *Status of Contributions to the OPCW-UN Joint Mission in Syria*, 17 February 2014, http://opcw.unmissions.org/LinkClick.aspx?fileticket=Yw0vVMzJwvw=&tabid=205 (accessed 20 March 2017).

74 Cf. Trapp, *Lessons Learned* (see note 32), 19.

75 Cf. ibid., 6.

Making Rules Flexible: Disarming under Time Pressure

Disarmament of WMD in areas of limited statehood often poses a dilemma for decision-makers: the goal of removing proliferation-relevant materials as quickly as possible from a crisis zone must be weighed against the principle of upholding established and strict standards for safety, security and verification.

The way in which the United States handled Iraq's chemical weapons after the invasion in 2003 demonstrates the importance of following procedures for accounting, securing and destroying weapons stockpiles in a transparent manner. As occupying powers, the United States and United Kingdom were obliged to respect the CWC provisions. Instead, they failed to notify the OPCW of abandoned Iraqi chemical weapons and destroyed some of them by circumventing CWC procedures. Terrorist groups later acquired some of the stocks that had not been declared and not been destroyed and used these weapons in attacks against US troops and others.[76]

Thus, disregarding treaty procedures can pose a risk. At the same time, strict implementation of the letter of such rules may lead to delays and the closing of a "window of opportunity".

In reality, rules have often been reinterpreted or ignored entirely.[77] Such a flexible approach to the elimination of Syrian chemical weapons was possible because the OPCW Technical Secretariat, the CWC states parties and the members of the UN Security Council largely agreed that urgent action was vital against the backdrop of civil war. The basis of the mission was the framework agreement signed on 14 September 2013 by US Secretary of State John Kery and his Russian counterpart Sergei Lavrov, which laid down important elements for the future disarmament process.[78] Spurred on by the two great powers, the OPCW Executive Council and UN Security Council subsequently found that the exceptional situation necessitated "special procedures for the expeditious destruction of [Syria's] chemical weapons programme" under "stringent verification". Disarmament should occur "in the soonest and safest manner", according to the diplomatic expression chosen by the UN Security Council for its resolution.[79]

Very soon after Syria submitted the first declaration on its chemical weapons programme to the OPCW on 20 September 2013, it became clear to those in charge of the disarmament mission that it was not going to be possible to destroy the entire stockpile on Syrian territory. Given the security situation, protecting a destruction facility would have required the long-term deployment of forces on the ground. At the time, no nation was willing to commit such forces.[80]

76 Investigative journalists brought these violations to light only years later. A spokeswoman for the US Department of Defense justified the improvised destruction of chemical weapons in Iraq by claiming that the CWC "did not foresee" a situation like that of Iraq. However, since the CWC obligations apply even to occupying powers, her argument is difficult to accept: see Ralf Trapp and Paul Walker, "Article IV: Chemical Weapons", in *The Chemical Weapons Convention*, ed. Krutzsch et al. (see note 30), 119–50 (122–26); C. J. Chivers, "The Secret Casualties of Iraq's Abandoned Chemical Weapons", in: *New York Times*, 14 October 2014, http://www.nytimes.com/interactive/2014/10/14/world/middleeast/us-casualties-of-iraq-chemical-weapons.html (accessed 26 May 2015). At the CWC States Party Conference in 2010, Iran had already levied accusations against the United Kingdom and United States that their chemical weapons destruction in Iraq in 2003 had violated the treaty. London and Washington unanimously rejected the criticism. They argued that under such unusual circumstances, following the CWC procedures would have delayed destruction of the chemical weapons and would have increased the risk of proliferation to terrorist groups. Such a development, they argued, would have contradicted the purpose of the CWC treaty: see OPCW, *The Islamic Republic of Iran's View and Concern over the Discovery and Destruction of Chemical Weapons by the United States and the United Kingdom in Iraq*, C-15/NAT.1 (The Hague, 29 November 2010), http://www.opcw.org/fileadmin/OPCW/CSP/C-15/national-statements/CSP15_Iran-Concerns_en.pdf; OPCW, *Statement by Ambassador Robert P. Mikulak United States Permanent Representative at the Fifteenth Session of the Conference of the States Parties* (The Hague, 29 November 2010), http://www.opcw.org/fileadmin/OPCW/CSP/C-15/national-statements/c15nat03_USA_en.pdf (accessed 20 March 2017); OPCW, *Response by the United Kingdom to a Request for Clarification Submitted under Article IX, Paragraph 2, of the Chemical Weapons Convention* (The Hague, 30 November 2010).

77 Busch and Pilat, "Disarming Libya?" (see note 18).

78 Cf. Bleek and Kramer, "Eliminating Syria's Chemical Weapons" (see note 72), 206–207.

79 Cf. United Nations Security Council, *Resolution 2118 (2013)*, S/RES/2118 (2013), (New York, 27 September 2013), http://http://www.un.org/ga/search/view_doc.asp?symbol=S/RES/2118(2013) (accessed 17 March 2017 See also the slightly earlier and similar decision of the OPCW Executive Council, *Destruction of Syrian Chemical Weapons. Decision*, EC-M-33/DEC.1 (The Hague, 27 September 2013), http://www.opcw.org/fileadmin/OPCW/EC/M-33/ecm33dec01_e_.pdf (accessed 20 March 2017).

80 In 2012, US assessments concluded that it would have taken 50,000 to 60,000 combat troops on the ground to secure and disarm Syria's chemical weapons in the country itself, even after a complete collapse of the central government: see Mark Hosenball and Phil Stewart, "Securing Syria

On 15 November 2013, the OPCW Executive Council therefore decided that most of Syria's chemical weapons would be destroyed outside of the country. This was a deviation from the CWC, which provides for destruction of all chemical weapons on the territory of the possessor state. The treaty prohibits chemical weapon transfers.[81] The Executive Council further "dictated"[82] the destruction timetable, whereas normally the possessor state would submit a destruction plan, which would then need to be approved by the OPCW.

The OPCW employed innovative processes and technologies to verify chemical weapons destruction. Syrian troops transporting chemical weapons to Latakia to be removed by ship were remotely monitored. Containers were secured with (electronic) seals and GPS transmitters. Even the destruction of a Syrian chemical weapon facility was remotely monitored, after the OPCW had equipped Syrian soldiers with helmet-mounted video cameras and communication devices.[83]

No nation was willing to host facilities for the destruction of Syria's chemical weapons stockpile. The most dangerous agents were therefore rendered harmless on the US Navy vessel Cape Ray, on the high seas. To some degree, the hydrolysis (breaking down chemicals through a reaction with water) of the around 600 tonnes of precursors of the nerve agent sarin and of 20 tonnes of mustard gas, and the destruction of the hydrolysis residues in Germany, Finland, the United Kingdom and the United States, took place in a legal grey area.[84] Who was in "control" over the chemical weapons stocks at the various transport stages outside of Syria? Who was their rightful "owner"? Who would bear the costs resulting from an accident? Several governments involved in the destruction process took substantial legal risks because not all these questions had been resolved before Syria's chemical weapons were eliminated.[85]

Syria did not remain the only example of the OPCW and UN Security Council authorising the transfer of chemical weapons outside the possessor state.[86] In February 2016, Italian media reported fights over a storage facility for chemical weapon precursors of Libya's former chemical weapons programme.[87] There was

Chemical Weapons May Take Tens of Thousands of Troops", *Reuters*, 16 August 2012, http://www.reuters.com/article/2012/08/16/syria-crisis-chemicalweapons-idUSL2E8JG74320120816 (accessed 17 August 2012).

81 *Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction* [= Chemical Weapons Convention (CWC)], Article I.1(a); cf. Krutzsch et al., "Issues Raised" (see note 48), 691. Only 133 tonnes of isopropanol, a precursor of chemical weapons production, were destroyed by Syria: see Bleek and Kramer, "Eliminating Syria's Chemical Weapons" (see note 72), 212. The negotiating history of the CWC strongly supports the argument that the transfer ban applies without exception. For instance, a German proposal to create an exception in the CWC that would enable transfers for the purpose of chemical weapons destruction failed: see Robert A. Friedman, "Legal Aspects of Weapons of Mass Destruction Elimination Contingencies", *The Nonproliferation Review* 23, no. 1–2 (2016): 61–82 (64). There are two precedents for the transfer of chemical weapons to another nation for destruction under the CWC: the transport of three old chemical weapons from Austria to Germany in 2007 and of one old chemical weapon from Belgium to the Netherlands in 2013. However, in neither case was there any risk of proliferation since these were World War I weapons: see Friedman, "Legal Aspects", ibid., 68–69, and cf. Krutzsch et al., "Issues Raised" (see note 48), 699.

82 Cf. Friedman, "Legal Aspects" (see note 81), 73.

83 The OPCW also uses remote-sensing technologies to ensure that disarmed production sites for chemical weapons are not used for prohibited activities: see Edith M. Lederer, "Watchdog: All Syrian Chemical Facilities to Be Destroyed This Summer. In New Report to UN, OPCW Chief Says Remote Monitoring System Will Ensure Locations Not Used Again", *The Times of Israel* (online), 3 March 2015, http://www.timesofisrael.com/watchdog-all-syrian-chemical-facilities-to-be-destroyed-this-summer/ (accessed 7 November 2016).

84 See Cheryl Pellerin, *75 Percent of Syria Chemical Materials Reported Destroyed*, Washington, D.C., 11 August 2014, http://archive.defense.gov/news/newsarticle.aspx?id=122898 (accessed 1 December 2016).

85 Cf. Friedman, "Legal Aspects" (see note 81), 65–66. For a good summary of the other adaptations of the CWC to the Syrian situation, see Zanders, "Using the Momentum" (see note 50).

86 As early as 2003, the US had transferred Libyan gas centrifuges abroad without giving the IAEA the opportunity to inspect the relevant facilities, thus disregarding IAEA procedural provisions. However, London and Washington had coordinated their actions with the IAEA: see Paul Kerr, "U.S. Says Libya Implementing WMD Pledge", *Arms Control Today* 34, no. 2 (March 2004), http://legacy.armscontrol.org/act/2004_03/Libya (accessed 27 April 2017).

87 After its accession to the CWC in 2004, Libya declared around 25 tonnes of mustard gas. The destruction of these weapons and other precursors was about half-finished in 2011. The Libyan transitional government discovered after the fall of Gaddafi that his regime had kept further stocks secret, including 517 artillery shells filled with mustard gas and eight 250-kg bombs. From mid-November 2013 to late January 2014, the usable mustard-gas stocks were destroyed in the country under OPCW supervision, in a facility supplied by the United States, and with international financial support. The precursors initially remained in Libya. For security reasons these substances were later destroyed outside the

even a report that some chemical weapons stockpiles had fallen into the hands of IS and other terrorist groups.[88] As early as 2011, the Libyan government had asked the OPCW for assistance with removing declarable warfare agents. Until 2016, however, this was only partially achieved, partly for security reasons.

On 22 July 2016, the UN Security Council empowered member states

> "to acquire, control, transport, transfer and destroy chemical weapons identified by the Director-General of the OPCW, consistent with the objective of the Chemical Weapons Convention, to ensure the elimination of Libya's chemical weapons stockpile in the soonest and safest manner, with appropriate consultations with the Government of National Accord".[89]

The Security Council thus supported a similar decision taken by the OPCW Executive Council two days earlier.[90] It was also agreed that the Libyan government remained the "owner" of its chemical weapons until the moment of destruction, but that it ceded control over these weapons as soon as they left Libyan territory.[91] On 27 August 2016, a Danish ship finally brought about 400 tonnes of chemical weapons precursors from Misrata to Germany.[92] These were to be destroyed (like the residues from the destruction of Syria's mustard gas stocks in 2014-2015) in the facility for disposing of chemical warfare agents in Munster.[93]

New Procedures: Investigating Chemical Weapons Uses

Investigating allegations of biological or chemical weapons use is one of the most daunting arms control challenges. At the same time, reliable investigation results are a prerequisite for any decisive reaction by the international community to cases of non-compliance.

It is an indication of the political sensitivity of such investigations that treaty-based mechanisms have hardly been used to clarify such serious violations of the core prohibitions. There have been only two requests (in Romania and North Korea) for an IAEA special inspection, which the Agency can conduct to examine suspicious facilities outside of routine safeguards inspections.[94]

Under the CWC provisions, any state party can request a so-called challenge inspection if it suspects that another CWC state party is producing or possessing chemicals for prohibited purposes. The Convention also includes solid and extensive procedures for investigating the alleged use of chemical weapons, which come close to the ideal of "anywhere, anytime" verification.[95] To date, however, no state party has requested a challenge inspection. Reasons include the fact that non-compliance allegations are often based on intelligence findings and states want to protect the sources of such information. Moreover, the accusing state might be concerned that its request fails or that it might become the target of retribution. If the subsequent investigation does not yield any reliable results, the accused state might appear to be the "winner" in the dispute.[96]

country: see Terrell et al., "Eliminating Libya's WMD Programs" (see note 16), 190–91.

88 See Lee Gancman, "Ex-Libyan Intel Official: IS Has Gaddafi-era Chemical Weapons", *The Times of Israel* (online), 26 January 2016, http://www.timesofisrael.com/ex-libyan-intel-official-is-has-gaddafi-era-chemical-weapons/; Bhaswati Mukherjee, "Threat of Chemical Weapons. Have Remnants of Gaddafi's Hidden Stockpiles Fallen into Jihadi Hands?", *The Tribune* (online), 8 May 2015, http://www.tribuneindia.com/news/comment/threat-of-chemical-weapons/77516.html (both accessed 20 March 2017).

89 United Nations Security Council, *Resolution 2298 (2016)*, S/RES/2298 (2016), (New York, 22 July 2016), para. 3, http://http://unscr.com/en/resolutions/doc/2298 (accessed 20 March 2017).

90 Cf. OPCW Executive Council, *Destruction of Libya's Remaining Chemical Weapons*. Decision, EC-M-52/DEC.1 (The Hague, 20 July 2016). The Security Council and OPCW might possibly have been able to do without this authorisation by referring to the Syrian precedent of destruction outside of the possessor state.

91 Cf. OPCW, *Plan for the Destruction of Libya's Remaining Category 2 Chemical Weapons Outside the Territory of Libya. Note by the Director-General*, *EC-M-53/DG.1* (The Hague, 19 August 2016), para. 11, http://www.opcw.org/fileadmin/OPCW/EC/M-53/en/ecm53dg01_e_.pdf (accessed 20 March 2017).

92 See Abdulkader Assad, "400 Tons of Libyan Chemical Weapons Transferred to Germany", *The Libya Observer*, 28 August 2016, http://www.libyaobserver.ly/news/400-tons-libyan-chemical-weapons-transferred-germany (accessed 20 March 2017).

93 See Christian Thiels, "Deutschland entsorgt Gaddafis Giftgas-Erbe", *tagesschau.de*, 8 August 2016, http://www.tagesschau.de/inland/chemiewaffen-libyen-101.html (accessed 20 March 2017).

94 Cf. Olli Heinonen, "*IAEA Inspections in Perspective*", *Nonproliferation Policy Education Center (NPEC)* (online), 23 May 2012, http://www.npolicy.org/article.php?aid=1180&tid=4 (accessed 16 December 2016).

95 See CWC (see note 81), Article IX.

96 Cf. Jonathan B. Tucker, "Verifying the Chemical Weapons Ban: Missing Elements", *Arms Control Today* 37, no. 1 (January

Against this background, it is all the more surprising that three international investigations are being or have been carried out in civil-war Syria to establish whether chemical weapons were used, and if so how and by whom. The first investigation is based on a section of the CWC's verification annex which establishes a connection between the convention and the so-called UN Secretary-General Mechanism. This mechanism was created in 1987 against the backdrop of chemical weapons use by Iraq. It authorises the UN Secretary-General to investigate breaches of the 1925 Geneva Protocol prohibiting the use of asphyxiating, toxic or similar gases or biological agents in war. Under the mechanism, the UN Secretary-General is authorised to deploy a group of inspectors from UN member states to investigate accusations of prohibited uses of chemical or biological weapons. Any UN member state can request such an investigation and the Secretary-General can approve it without Security Council consent. This instrument closes a gap particularly in the BWC, which – unlike the CWC – does not have a verification mechanism.[97] However, the Secretary-General Mechanism remains separate of the BWC. Attempts to establish it as an instrument for investigating violations of the biological weapons treaty have so far failed.

The CWC supports the Secretary-General Mechanism by stipulating that the OPCW will work closely with the UN Secretary-General to investigate alleged use of chemical weapons involving states not party to the CWC or "a territory not controlled by a State Party". On request, the OPCW will put "its resources at the disposal" of the UN Secretary-General.[98]

In March 2013, the Syrian government requested then-UN Secretary-General Ban Ki-moon to investigate an alleged chemical weapons use in Khan al Assal, which had occurred on 19 March of that year. The Secretary-General approved Syria's request on 21 March. On the same day, France and the United Kingdom requested that the possible use of chemical weapons by the Syrian government at other locations be included in the investigation.[99] In consultation with the OPCW and the World Health Organisation, Ban appointed 15 experts to form an inspection team. The team was expected to be available to begin an on-site investigation with 48 hours' notice.

On 14 August 2013, after lengthy discussions, the Syrian government and the UN agreed on the scope and terms of the inspections. The inspectors arrived in Damascus on 18 August 2013 to investigate three alleged cases of chemical weapons use.

Three days after the team's arrival, on 21 August, the biggest chemical weapons attack since 1988 occurred in the Ghouta region, near Damascus. At least several hundred people were killed by the nerve agent sarin. After an emergency session of the UN Security Council on 22 August, its President demanded an immediate, thorough and impartial investigation of the incident. The UN Secretary-General sent the UN's High Representative for Disarmament Affairs, Angela Kane, to Damascus to clarify with the Syrian government the possibilities for investigating the Ghouta area attacks. By 25 August, Kane had obtained such an agreement, and the next day the experts began to conduct on-site inspections. On 31 August they returned to the OPCW headquarters in The Hague.

The mission leader, Åke Sellstrom, submitted his provisional report to the UN General Assembly and Security Council on 16 September. This is still the most important source on the 21 August events. The report concludes that great quantities of sarin were deployed via artillery rockets.[100] It contains no statements on the perpetrators, even though many experts believe that the circumstances point to the Syrian government.

Reports on chemical weapons use in Syria continued to come in after the attacks of 21 August. In April 2014, the OPCW Director-General Ahmet Üzümcü reacted by establishing a Fact Finding Mission (FFM), something the CWC does not provide for. The FFM is tasked with investigating which reports of chemical weapons use after 21 August 2013 are true. The mis-

and February 2007): 6–13, http://www.armscontrol.org/act/2007_01-02/Tucker#Sidebar1 (accessed 20 March 2017).

97 Prior to the Syria mission, the mechanism had been activated twice, in Mozambique and Azerbaijan, both in 1992: see United Nations Information Service, *Frequently Asked Questions about the United Nations Mission to Investigate the Allegations of the Use of Chemical Weapons in the Syrian Arab Republic. Prepared by the United Nations Office for Disarmament Affairs*, UNIS/INF/489 (Vienna, 13 September 2013), http://www.unis.unvienna.org/pdf/2013/FAQs_about_the_UN_Mission_to_investigate_the_alleged_use_of_chemical_weapons_in_Syria.pdf (accessed 18 November 2016).

98 CWC (see note 81), Annex 2, Part XI, Article (27).

99 Ban Ki-Moon, "Press Encounter on Syrian Government Request Statement", *UN Web TV (online)*, 21 March 2013, http://webtv.un.org/topics-issues/un-secretary-general/watch/ban-ki-moon-press-encounter-on-syrian-government-request/2241903792001#full-text (accessed 20 March 2017).

100 See United Nations General Assembly/Security Council, *Report on the Alleged Use of Chemical Weapons in the Ghouta Area* (see note 70).

sion's mandate does not include identification of those responsible for such attacks.

Despite carrying out its investigations under the most difficult of circumstances, the FFM had submitted a total of seven reports by mid-2017.[101] These are based on various sources of information: FFM staff analysed media reports, and interviewed victims and doctors (in part via telephone and Skype), for example. Sometimes, it also had access to biomedical, soil and other samples. The FFM presence in Damascus proved useful in organising the investigations. In its reports, the mission refers to 116 alleged cases of chemical weapons use in Syria that took place between April 2014 and January 2016. The OPCW has investigated 29 of these incidents and concluded that it is highly likely that toxic chemicals – mainly chlorine gas or mustard gas – were used as warfare agents in 23 of them.[102]

In June 2017, the FFM confirmed that Sarin had been used during an attack on 4 April at the rebel-held Khan Shaykhun, which killed more than 80 people and injured hundreds.[103] This OPCW investigation took place under immense scrutiny because it had been the first confirmed use of sarin since the 21 August 2013 attacks. Following the attack, Western members of the Security Council drafted a resolution demanding detailed information from the Syrian government in order to clarify the circumstances of the release of chemical warfare agents. After the US airstrike on a Syrian air force base on 6 April, however, the resolution was not put to the vote.[104]

Of the three instruments for verifying chemical weapons and investigating their use in Syria, the OPCW-UN Joint Investigative Mechanism (JIM) has the most ambitious mandate. The JIM was created on 7 August 2015 by the UN Security Council "to identify to the greatest extent feasible individuals, entities, groups, or governments who were perpetrators, organisers, sponsors or otherwise involved in the use of chemicals as weapons, including chlorine or any other toxic chemical, in the Syrian Arab Republic".[105]

Russia had for some time blocked a decision to establish the mechanism, in an apparent attempt to avoid singling out the Assad regime as the focus of investigations. Moscow therefore insisted that reports of IS having used chemical weapons against Kurdish troops in Northern Iraq were also to be included in the investigation.[106] The Security Council unanimously decided to establish the JIM once Baghdad had agreed to an OPCW investigation into attacks on Kurdish forces.[107]

The activities of the JIM, which began in November 2015, are limited to cases in which the FFM "determines or has determined" that they "involved or likely involved the use of chemicals as weapons".[108] The commission initially investigated nine incidents where chemical weapons had been used between between April 2014 and August 2015. These cases had been

101 The FFM reports can be found here: Organisation for the Prohibition of Chemical Weapons, Fact-Finding Mission Reports, https://www.opcw.org/special-sections/syria/fact-finding-mission-reports, (accessed 6 July 2017).

102 United Nations Security Council, *First report of the Organization for the Prohibition of Chemical Weapons-United Nations Joint Investigative Mechanism,* S/2016/142, paragraph 42, http://www.un.org/ga/search/view_doc.asp?symbol=S/2016/142&referer=http://www.un.org/apps/news/story.asp?NewsID=53291&Lang=E (accessed 6 July 2017).
In late 2016, the FFM submitted a report on its investigation of a further incident. However, it was unable to confirm the Syrian government's claim that opposition groups had killed six people with a chemical weapons attack in Aleppo on 2 August 2016: see United Nations Security Council, *Report of the OPCW Fact-Finding Mission in Syria Regarding the Incident of 2 August 2016 as Reported in the Note Verbale of the Syrian Arab Republic Number 69 Dated 16 August 2016. S/2017/45*, S/1444/2016 (21 December 2016) https://documents-dds-ny.un.org/doc/UNDOC/GEN/N17/011/93/DOC/N1701193.DOC (accessed 4 April 2017).

103 Organisation for the Prohibition of Chemical Weapons, Report of the OPCW Fact-Finding Mission in Syria regarding an alleged incident at Khan Sheykhun, Syrian Arab Republic April 2017, https://www.opcw.org/fileadmin/OPCW/Fact_Finding_Mission/s-1510-2017_e_.pdf (accessed 6 July 2017).

104 "Syria: Briefing and Vote on Draft Resolution on the Use of Chemical Weapons", *What's in Blue* (online), 7 April 2017, http://www.whatsinblue.org/2017/04/syria-briefing-and-vote-on-a-resolution-on-the-use-of-chemical-weapons.php; "UNSC Puts Off Consideration of Draft Resolutions on Syria – Russia's Mission", *TASS*, 7 April 2017, http://tass.com/politics/939896 (both accessed 7 April 2017). See also See Gordon, Michael R., Helene Cooper and Michael D. Shear, "Dozens of U.S. Missiles Hit Air Base in Syria", *New York Times,* 6 April 2017, https://www.nytimes.com/2017/04/06/world/middleeast/us-said-to-weigh-military-responses-to-syrian-chemical-attack.html?mcubz=1 (accessed 6 July 2017).

105 United Nations Security Council, *Resolution 2235 (2015)*, adopted by the Security Council at its 7501st meeting, on 7 August 2015, S/RES/2235 (2015), (New York, 7 August 2015), para. 5, http://www.un.org/en/ga/search/view_doc.asp?symbol=S/RES/2235(2015) (accessed 3 June 2017).

106 See Anna Cara, "US Idea to Lay Blame in Syria Chlorine Attacks Gets Support", *ABC News* (online), 7 May 2015, http://abcnews.go.com/US/wireStory/us-idea-lay-blame-syria-chlorine-attacks-support-30887925 (accessed 11 May 2015).

107 See Deutsch, "Exclusive: Samples Confirm Islamic State Used Mustard Gas in Iraq" (see note 63).

108 United Nations Security Council, *Resolution 2235 (2015)* (see note 105).

selected, *inter alia*, because they seemed less difficult to resolve than other comparable cases.

In August and October 2016 the then-head of the JIM, Virginia Gamba,[109] submitted two reports to the Security Council. The JIM concluded that the Syrian government was responsible for three attacks with chlorine, and IS for one attack with mustard gas.[110] This marks the first time the international community has identified an institution or organisation that used chemical weapons or was involved in their use. The JIM is attempting to assign individual responsibility for such crimes.[111]

On 17 November 2016 the Security Council extended the JIM's mandate for an additional year. The decision had been preceded by a bitter argument between Russia and the Western permanent members of the Security Council. Moscow criticised the JIM's work as being "biased" and suggested expanding its mandate to include investigating alleged use of chemical weapons by non-state actors in the region. Simultaneously, Russia rejected Western proposals to make the JIM's findings the basis for investigations by the International Criminal Court (ICC).[112] Under the ICC's Rome Statute, "employing asphyxiating, poisonous or other gases, and all analogous liquids, materials or devices" is a war crime.[113] Whilst Syria has not signed the Statute, the Security Council can still refer war crimes carried out in non-member states to the Court. This would clear the way for a criminal prosecution.[114]

The investigation of the 4 April 2017 Khan Shaykhun attack has now also been turned over to the JIM, which will attempt to identify the perpetrators.

109 See "Experten sollen Giftgas-Angriffe in Syrien prüfen", *Süddeutsche Zeitung*, 28 August 2015, http://www.sueddeutsche.de/politik/chemiewaffen-experten-sollen-giftgas-angriffe-in-syrien-pruefen-1.2625575 (accessed 20 March 2017).

110 Cf. United Nations Security Council, *Third Report of the Organization for the Prohibition of Chemical Weapons-United Nations Joint Investigative Mechanism*, S/2016/738 (New York, 24 August 2016), http://www.un.org/en/ga/search/view_doc.asp?symbol=S/2016/738; United Nations Security Council, *Fourth Report of the Organization for the Prohibition of Chemical Weapons-United Nations Joint Investigative Mechanism*, S/2016/888 (New York, 21 October 2016), http://www.un.org/en/ga/search/view_doc.asp?symbol=S/2016/888 (accessed 20 March 2017).

111 "UN-OPCW Panel Seeks Names of Syrian Commanders in Gas Attacks Probe", *AFP*, 17 February 2017, http://www.al-monitor.com/pulse/afp/2017/02/syria-conflict-chemical-un-warcrimes.html; Anthony Deutsch, "Exclusive: Assad Linked to Syrian Chemical Attacks for First Time", *Reuters*, 13 January 2017, http://www.reuters.com/article/us-mideast-crisis-syria-chemical-weapons-idUSKBN14X1XY (both accessed 21 February 2017).

112 One day before the extension of the JIM's mandate, Russia withdrew its signature from the Statute of the International Criminal Court because of the Court's supposed "partiality": see Ivan Nechepurenko and Nick Cumming-Bruce, "Russia Cuts Ties with International Criminal Court, Calling It 'One-Sided'", *The New York Times*, 16 November 2016, http://www.nytimes.com/2016/11/17/world/europe/russia-withdraws-from-international-criminal-court-calling-it-one-sided.html?_r=0 (accessed 18 November 2016).

113 United Nations, *Rome Statute of the International Criminal Court*, A/CONF.183/9 (17 July 1998), http://legal.un.org/icc/statute/99_corr/cstatute.htm (accessed 3 June 2017).

114 Cf. Scott Spence and Meghan Brown, *Syria: International Law and the Use of Chemical Weapons* (London, 8 August 2012), http://www.vertic.org/pages/posts/syria-international-law-and-the-use-of-chemical-weapons-345.php (accessed 9 December 2016).

As Few Rules as Necessary, as Much Preparation as Possible: Conclusions and Recommendations

Even in areas of limited statehood, non-proliferation regimes provide the most effective instruments to control WMD. Military interventions to secure and destroy WMD are risky and not very promising. Few, if any, governments appear willing to provide troops for such missions.[115] It remains to be seen whether the US airstrike on the Sheirat air force base on 6 April 2017 will deter the Syrian armed forces from using chemical weapons again.[116] An assessment of multilateral efforts to control WMD in crisis zones, thus has to take into account the lack of alternatives.

Current efforts to control chemical weapons in the Middle East have obvious limits and shortcomings. Syria remains in non-compliance with the CWC. The OPCW has not yet been able to determine that the Syrian chemical weapons stockpile has been comprehensively and irreversibly eliminated.[117] There are worrying indications that the government in Damascus has continued to work on nerve agents, even after the destruction of declared chemical weapons had been completed, and that IS is producing mustard gas.[118] The frequency of chemical weapon attacks occurring in Syria has led some to warn of a "new normal".[119] Those responsible for the attacks have been identified only in a few cases. So far, it has not been possible to refer any of the allegations to the International Criminal Court.[120] This impunity might encourage copycats, leading to chemical weapons being used in other civil wars as well.

Despite these deficiencies, the achievements in Syria are important and remarkable. The elimination between 2013 and 2015 of approximately 1,300 tonnes of nerve agents has prevented the use of these weapons or the loss of control over them.[121] The Syrian chemical weapons programme no longer poses a strategic threat to Israel.[122] Any remains of the Libyan chemical weapons programme relevant for proliferation have now been removed from the country. The facts and circumstances surrounding the horrendous 21 August 2013 chemical attacks in the Ghouta area have been largely established. The UN and OPCW have proven that chemical weapons have been used dozens of times since these attacks.[123] For the first time, those

115 See e.g. Martin B. Malin, "The Effectiveness and Legitimacy of the Use of Force to Prevent Proliferation", in *Arms Control in the 21st Century. Between Coercion and Cooperation*, ed. Oliver Meier and Christopher Daase (New York, 2013), 81–122.

116 White House, Office of the Press Secretary, "Statement by President Trump on Syria" (Mar-a-Lago, Florida, 6 April 2017), http://www.whitehouse.gov/the-press-office/2017/04/06/statement-president-trump-syria (accessed 24 April 2017).

117 The US Secretary of Defense, James Mattis, declared in April 2017 that the United States had no doubt that Syria was violating the CWC because it still possessed chemical weapons: see Thomas Gibbons-Neff, "Syria Still Has Chemical Weapons, U.S. Defense Secretary Says", *The Washington Post* (online), 21 April 2017, http://www.washingtonpost.com/world/syria-still-has-chemical-weapons-says-us-defense-secretary/2017/04/21/2fc71740-267a-11e7-b503-9d616bd5a305_story.html?utm_term=.68b59ac6b615 (accessed 24 April 2017).

118 Cf. Amy E. Smithson, "Assad's Phony Farewell to Arms", *Foreign Affairs* (online), 26 October 2016, http://www.foreignaffairs.com/articles/syria/2016-10-26/assads-phony-farewell-arms (accessed 20 March 2017).

119 Kathleen Fallon, Natasha Kieval, Zaher Sahloul et al., *A New Normal: Ongoing Chemical Weapons Attacks in Syria* (Canfield, Ohio: Syrian American Medical Society, February 2016), http://www.sams-usa.net/wp-content/uploads/2016/09/A-New-Normal_Ongoing-Chemical-Weapons-Attacks-in-Syria.compressed.pdf (accessed 20 March 2017). The US justified its military strike against Syria on 6 April 2017 *inter alia* by stating that the use of chemical weapons against civilians in Syria and elsewhere must not become "the new normal": see *Statement by Ambassador Kenneth D. Ward, United States Delegation to the Executive Council, Organisation for the Prohibition of Chemical Weapons* (The Hague, 13 April 2017), http://www.opcw.org/fileadmin/OPCW/EC/M-54/en/United_States_ECM54_Statement.pdf (accessed 24 April 2017).

120 Cf. Colum Lynch, "Push to Sanction Syria for Using Chemical Weapons Hits Russian Resistance", *Foreign Policy* (online), 27 September 2016, https://foreignpolicy.com/2016/09/27/push-to-sanction-syria-for-using-chemical-weapons-hits-russian-resistance/ (accessed 11 November 2016).

121 The destruction process was completed in early 2016: OPCW, *Destruction of Syrian Chemical Weapons Completed* (The Hague, 20 January 2016), http://www.opcw.org/news/article/destruction-of-syrian-chemical-weapons-completed/.

122 In September 2013, against this backdrop, then-Israeli President Shimon Perez considered for the first time the possibility that Israel might acceed to the CWC: see "Peres: Israel Will Consider Joining Chemical Weapons Ban Treaty", *Reuters*, http://www.reuters.com/article/2013/09/30/us-israel-chemical-idUSBRE98T0CS20130930 (accessed 11 March 2014).

123 See "Interview: The Syrian Forces and ISIL Used Toxic Chemicals as Weapons – Report", *UN News Service*, 30 August

responsible for several attacks have been identified. The JIM has investigated nine cases of chemical weapons use in 2017 alone.[124] This paves the way for a possible criminal prosecution.

Prospects: Future Trends, Regional Hot Spots, Gaps in Regulations

There are two regions in the world where the overlap between proliferation and areas of fragile statehood is particularly great. In the Middle East, state disintegration has accelerated and spread since 2011. Many regional states possess WMD or the capacity (or at least the necessary expertise) to develop or produce such weapons because they either have or had programmes to develop nuclear, biological or chemical weapons. All military uses of chemical weapons since World War Two have taken place in the Middle East. Many states in the region implement global non-proliferation norms only partially or not at all.[125] Finally, IS is a regional non-state actor that has already used WMD locally and could also use them outside the region.[126]

In Asia, there is also a risk of states losing control over WMD. Pakistan possesses nuclear weapons, but controls only part of its territory. Transnational terrorist networks use Pakistan as a safe haven and have had contacts right at the centre of its nuclear programme.[127] Areas of limited statehood where WMD are present could develop in North Korea, too, should there be a national crisis or an armed conflict on the peninsula. It must be assumed that the United States and China would directly intervene to secure nuclear weapons in case of a national crisis in North Korea or Pakistan. Nonetheless, multilateral regimes might also be needed in such a scenario to help prevent the proliferation of relevant capacities.[128]

However, proliferation issues could also arise in other regions, for instance in Africa. About 220 kilogrammes of highly enriched uranium from the apartheid regime's dismantled nuclear weapons are stored to this day in a bunker at the nuclear research centre in Pelindaba, South Africa. Despite an attempted theft in November 2007 that nearly succeeded, and despite the United States' considerable pressure on Pretoria, the South African government has so far not been willing to remove this material from the country.[129] Unconfirmed NGO reports on chemical weapons use by the Sudanese government show how important international investigations of such attacks in civil wars are.[130]

Finally, in Europe, too, the territorial integrity of nations is at risk. Since Russia's annexation of Crimea, the IAEA has not inspected the nuclear facilities there. In January 2015, the Kiev government and pro-Russian rebels accused each other of having used chemical weapons in Eastern Ukraine.[131]

Gaps in regulations and implementation of existing rules exist above all in biological weapons control. No organisation verifies whether BWC states party comply with the Convention's provisions. Nor is there a formalised multilateral process for disarming nuclear

2016, http://www.un.org/apps/news/story.asp?NewsID=54795#.V8ghVTUzjIV (accessed 20 March 2017).

124 "Syria: Briefing and Vote on Draft Resolution" (see note 104). In addition, the JIM is investigating the Khan Shaykhun incident.

125 See, e.g., *WMD Arms Control in the Middle East. Prospects, Obstacles and Options*, ed. Harald Müller and Daniel Müller (Farnham and Burlington, 2015).

126 See Marine Pennetier, "Islamic State Could Launch Gas Attacks beyond Syria: OPCW Official", *Reuters*, 23 November 2016, http://www.reuters.com/article/us-mideast-crisis-syria-mustardgas-idUSKBN13I1CZ (accessed 24 November 2016).

127 Cf. Oliver Thränert and Christian Wagner, *Pakistan as a Nuclear Power. Nuclear Risks, Regional Conflicts and the Dominant Role of the Military*, SWP Research Paper 8/2009 (Berlin: Stiftung Wissenschaft und Politik, June 2009), https://www.swp-berlin.org/en/publication/pakistan-as-a-nuclear-power/ (accessed 5 June 2017).

128 Cf. Robert J. Peters, *"The WMD Challenges Posed by a Collapse of North Korea"*, *38 North* (online), 14 April 2015, http://38north.org/2015/04/rpeters041415/ (accessed 20 March 2017).

129 See Douglas Birch and Jeffrey R. Smith, *"South Africa Rebuffs Repeated U.S. Demands That It Relinquish Its Nuclear Explosives"*, *Center for Public Integrity* (online), 14 March 2015, http://www.publicintegrity.org/2015/03/14/16873/south-africa-rebuffs-repeated-us-demands-it-relinquish-its-nuclear-explosives (accessed 20 March 2017).

130 Cf. Amnesty International, *Scorched Earth, Poisoned Air. Sudanese Government Forces Ravage Jebel Marra, Darfur*, (London, 2016), http://www.amnesty.org/download/Documents/AFR5448772016ENGLISH.PDF. For a critical evaluation of this report, see Jean P. Zanders, "Allegation of Chemical Warfare in Darfur", *The Trench* (online), 1 February 2017, http://www.the-trench.org/darfur-chemical-warfare/ (both accessed 20 March 2017).

131 See "Donetsk Republic Says Kiev Used Chemical Munitions in Attack on Airport", *Tass*, 16 January 2015, http://tass.ru/en/world/771579; "Kyiv Verifying Reports that Militants Used Chemical Weapons at Donetsk Airport", *Interfax-Ukraine*, 24 January 2015, http://en.interfax.com.ua/news/general/246601.html (both accessed 20 March 2017). Although both Russia and the Ukraine are CWC members, neither has requested a challenge inspection.

weapons.[132] This could be a problem if WMD disarmament in North Korea becomes an acute issue.[133]

Adapting Non-Proliferation Regimes

The international body of rules governing WMD control is a legal basis and an important normative point of reference for disarmament processes – particularly in areas of limited statehood and crisis zones. Even if the central government is not willing or able to implement multilaterally agreed rules, the procedures set out in non-proliferation regimes can help to expose incomplete disarmament, enable members of the international community to verify the correctness of disarmament results, and maintain high safety and security standards.[134]

Multilateral institutions also provide spaces for shaping international opinion and forging multilateral consensus. Many of the UN Security Council's decisions on eliminating Syria's and Libya's chemical weapons were prepared in the OPCW. The outcome of OPCW Executive Council consultations – where no state has a veto – may have had greater legitimacy than the results of deliberations in the Security Council. Moreover, the expertise that exists in international organisations was indispensable for overcoming difficulties in the practical implementation of the disarmament processes.

The OPCW has begun to tackle new challenges of a world shaped by continuing crisis. Its Director-General Üzümcü described the arrangements for disarming Syria's declared chemical weapons stocks and the novel instruments used (such as the FFM, DAT and JIM) as a "new paradigm" for the OPCW's work. This new approach, he declared, could also be applied to other countries, for instance Iraq or Libya.[135] For him, given the changed geopolitical situation, "business as usual" is no longer an option. The OPCW (and others) have thus raised expectations that they will be able to significantly contribute to WMD control in similar cases.[136]

There is broad consensus among states parties that non-proliferation regimes have to be better tailored to the task of reducing the risk of WMD proliferation, including in areas of limited statehood. Views on how to adapt them, however, vary significantly according to each state's specific interests. Thus, Russia and China are concerned that granting international organisations new authority could undermine the principle of non-interference in internal affairs. Other governments also view the adaptive approach with scepticism, worrying that it might lead to a loss of political control. These differences regarding the future development of the OPCW have created a deep rift between member states that could compromise its ability to act.[137]

This rift was exacerbated by a dispute over how best to react to the chemical weapons attack of 4 April 2017. Russia in particular criticised the OPCW for being "partial" because of its statements documenting the use of sarin in Khan Shaykhun. Moscow also accused the FFM of not having verified Russian evidence of the use of chemical weapons by terrorist groups. Russia and Iran demanded that a new expert commission be deployed to investigate the attack in Khan Shaykhun and pursue the US claim that chemical weapons were being stored at Syria's Shayrat air-force base.[138] The majority of the OPCW Executive Council

132 The IAEA did verify the disarmament of South Africa's atomic weapons programme in the early 1990s. However, the Agency only began its verification after the actual dismantling of the warheads had taken place: see Olli Heinonen, "Lessons Learned from Dismantlement of South Africa's Biological, Chemical, and Nuclear Weapons Programs", *The Nonproliferation Review* 23, no. 1–2 (2016): 147–62.

133 Cf. Bleek et al., "Elimination of Weapons of Mass Destruction" (see note 9), 22.

134 See Oliver Meier, *Chemiewaffen in Syrien. Wie sich die Bedrohung verringern lässt*, SWP-Aktuell 36/2013 (Berlin: Stiftung Wissenschaft und Politik, June 2013), http://www.swp-berlin.org/fileadmin/contents/products/aktuell/2013A36_mro.pdf (accessed 20 March 2017).

135 Ahmet Üzümcü, "Keynote Speech by Director-General Ahmet Üzümcü", Ljubljana, 9 May 2016, http://www.opcw.org/fileadmin/OPCW/ODG/uzumcu/160509_DG_Speech_to_NATO_WMD_Conference.pdf (accessed 20 March 2017).

136 Cf. Trapp, *Lessons Learned* (see note 32), 2.

137 On 11 November 2016, the OPCW Executive Council took a decision – with a narrow two-thirds majority and against Chinese, Iranian, Russian and Syrian opposition – to condemn Syria's treaty violations. Thus, the OPCW was unable to respond to this substantial non-compliance case on the basis of a consensus decision. This rift within the international community could further weaken the norm against chemical weapons: see Céline Barmet and Oliver Thränert, *Syria and the Chemical Weapons Ban*, Policy Perspectives, 4/8 (Zurich, November 2016), http://www.css.ethz.ch/content/dam/ethz/special-interest/gess/cis/center-for-securities-studies/pdfs/PP4-8.pdf (accessed 21 February 2017).

138 The Ministry of Foreign Affairs of the Russian Federation, *Remarks by Russia's Permanent Representative at the OPCW, Ambassador Alexander Shulgin, at the 54th Meeting of the OPCW Executive*

rejected their motion.[139] The evident politicisation of OPCW investigations, however, is a heavy burden for future chemical weapons control efforts.[140]

States parties are often reluctant to provide additional resources to strengthen international non-proliferation regimes. Structural problems, such as the competition between various international organisations for resources and tasks, put additional hurdles on the path to reform.

There are two possible (and in part already recognisable) approaches to ensure that the international community will be better able to manage future challenges of controlling WMD in areas of limited statehood. The first (and conservative) strategy aims to preserve existing initiatives, rules and mechanisms as well as those established more recently, over the past few years. For example, a complex patchwork of agreements and cooperations has been established in the context of the Syria mission. The actors involved, driven by the urgency of controlling WMD on the ground in the fastest manner possible, stitched together this patchwork in a step-by-step, ad hoc manner and without having a clear vision of the ultimate end state. This spontaneously developed body of rules could be reactivated, at least in part, to tackle future crises. Such a conservative approach has the advantage that no new mechanisms would need to be established. Governments retain their freedom to act because no new legal norms are created. The downside of this approach: the legitimacy and effectiveness of existing instruments will have to be re-established in each new crisis. This provides powerful states with an opportunity to object to the application of these mechanisms on the basis of real (or opportunistic) practical or legal grounds. In addition, over time some of the existing instruments are likely to be perceived as less relevant or effective.

By contrast, a second (and progressive) approach would aim to codify, strengthen and expand those instruments that have proved effective during the most recent operations to control WMD in areas of limited statehood. Any gaps in the body of rules could then be closed by creating new mechanisms and instruments. This approach would require the willingness to establish new generic rules and procedures for WMD control. Such an approach would need to be based on the states parties' willingness to accept some limits on their freedom to act in acute crises. This applies particularly to the permanent members of the UN Security Council.

In reality, it will be essential to strike the right balance between the two approaches. The motto should be: "As few rules as necessary, as much preparation as possible".[141] There are four issue areas in which improvements would be meaningful – prevention, contingency planning, inclusion of non-state stakeholders and political support for measures to control WMD in areas of limited statehood.

Reinforcing Prevention

Prevention is the most effective and, in the long term, the most efficient way to reduce the risk of proliferation-relevant materials falling into the wrong hands

Council (The Hague, 13 April 2017), http://www.mid.ru/en/foreign_policy/news/-/asset_publisher/cKNonkJE02Bw/content/id/2727332 (accessed 24 April 2017).

139 Only six nations (Algeria, China, Iran, Russia, South Africa and Sudan) supported the proposal. The other members of the 41-members of the Executive Council either voted against establishing another commission or abstained: see OPCW, *Report of the Fifty-Fourth Meeting of the Executive Council*, EC-M-54/2 (20 April 2017), http://www.opcw.org/fileadmin/OPCW/EC/M-54/en/ecm5402_e_.pdf (accessed 24 April 2017).

140 The FFM confirmed in June 2017 that sarin or a sarin-like substance had been used in the Khan Shaykhun attack. The case was then passed on to the JIM, whose staff will try to identify the perpetrators. After having briefed the Security Council on 6 July, the head of the JIM, Edmond Mulet, complained about the "politicisation" of the JIM's work. He said that the investigators "do receive – unfortunately – direct and indirect messages all the time from many sides telling us how to do our work. And some of those messages are very clear in saying that if we don't do our work according to them – these different visions – then they will not accept the conclusions of our work." He appealed to the international community to let the team do its work "in an impartial, independent and professional manner." See Al-bab.com, *Chemical weapons in Syria: statement by head of investigative team,* 6.7.2017, http://al-bab.com/chemical-weapons-syria-statement-head-investigative-team (accessed 9 July 2017).

141 Matthew Hoisington lists three options under international law for dealing with spaces that have little or no effective governance. For him, the conservative-orthodox approach, which consists of applying existing rules, is inadequate because it chases after the "phantom" of an existing state. He considers the second approach, of aiming to successively adapt legal standards to the new situation, logical in principle but risky in that it might create new rationales for intervention. Instead, Hoisington recommends a third approach: a radical redefinition of the law in areas of limited statehood, which takes as its starting point the existing, many-layered power relations in such areas: see Matthew Hoisington, "Toward an International Law for Ungoverned Spaces", *Global Governance* 20, no. 4 (2014): 491–98.

during crises and in failing states. Three episodes illustrate the point. On 11 June 2014, IS captured the former Iraqi chemical weapons production facility Al-Muthanna.[142] This is where artillery shells and hundreds of tonnes of chemical warfare agents, whose disposal was considered too dangerous and costly, had been stored in two bunkers since 1994. In July 2014, about 40 kilogrammes of low-enriched uranium from a research laboratory at Mosul University fell into the hands of IS during its capture of the city.[143] Since 2012, armed rebel groups in Syria had gained control over large chlorine stocks from at least two civilian facilities, and may have misused these agents for chemical weapons attacks.[144] Notwithstanding the differences among these cases: had the international community reacted earlier, proliferation risks could have been reduced.[145]

Multilateral non-proliferation regimes make an important, albeit limited, contribution to prevention. The IAEA mandate is restricted to preventing a misuse of civilian nuclear energy programmes.[146] There exists (almost) no control or implementation mechanism for the BWC. The OPCW has successfully supervised the destruction of almost 92 percent of the 70,000 tonnes of chemical weapons declared globally. Programmes to improve the safety and security of nuclear, biological and chemical facilities have been expanded for years.[147] However, these programmes run into problems when donor countries limit their financial support or recipient countries are not (or no longer) willing to cooperate.

Measures to safeguard weapons-grade and dual-use materials have to be expanded where statehood is at risk. It is also crucial to universalise multilateral regimes. The focus should be on those crisis regions of the Middle East and Asia, where there is an especially high number of states that remain outside the BWC, CWC and NPT. Obligations to declare and eliminate existing capabilities become legally-binding only once a country has acceded to these treaties.[148]

The OPCW, the IAEA and the Implementation Support Unit of the BWC should have a mandate to advise also those states that have not yet acceded to the respective regime. For instance, it can be useful to give technical support for WMD control to a candidate state as soon as it has shown its political will to accede, in order to

- familiarise political decision-makers with the regime's rules and procedures;
- discuss with officials how to apply these procedures under exceptional circumstances; and
- reassure the other states parties that the treaty procedures can be swiftly implemented, once a state has acceded.[149]

Improving Contingency Planning

There will always be cases where prevention fails. Therefore, the international community needs to better prepare for crises in which control over WMD may be lost by improving risk monitoring, exercises

142 Iraq became a state party to the CWC on 12 February 2009 and had declared two bunkers to the OPCW, in accordance with procedures under the Convention. On 7 July 2014, the Iraqi ambassador to the UN notified the UN Secretary-General that Iraq had lost control of the facility. However, the chemical warfare agents stored there were most probably no longer usable: see Jean P. Zanders, "Threat Posed by Islamic State's Capture of Iraq's Muthanna CW Site", *The Trench* (online), 29 September 2014, http://www.the-trench.org/al-muthanna-cw-site-capture/; idem, "What's He Building in There?", *CBRNe World*, (August 2014), 8–12, http://www.cbrneworld.com/_uploads/download_magazines/Zanders.pdf (both accessed 20 March 2017).

143 See Julian Borger, "The Mosul Mystery: The Missing Uranium and Where It Came from", *The Guardian* (online), 13 July 2014, http://www.theguardian.com/world/julian-borger-global-security-blog/2014/jul/13/iraq-nuclear-mosul-uranium-isis; Michelle Nichols, "Exclusive: Iraq Tells U.N. that 'Terrorist Groups' Seized Nuclear Materials", *Reuters*, 9 July 2014, http://www.reuters.com/article/2014/07/09/us-iraq-security-nuclear-idUSKBN0FE2KT20140709 (both accessed 20 March 2017).

144 Cf. United Nations Security Council, *Third Report of the OPCW-UN JIM* (see note 110), 10.

145 Germany has contributed 2 million euros to support Iraq in eliminating any remaining chemical weapons. Iraqi experts were trained at a mobile laboratory in Germany, which was then delivered to Iraq in December 2015 to be used in the destruction of chemical warfare agents: see *Jahresabrüstungsbericht 2015* (Berlin, 2016), 41, http://www.auswaertiges-amt.de/cae/servlet/contentblob/730798/publicationFile/215085/160406_JAB_2015.pdf (accessed 20 March 2017).

146 Cf. Thomas E. Shea and Laura Rockwood, *IAEA Verification of Fissile Material in Support of Nuclear Disarmament* (Cambridge, Mass., May 2015), http://belfercenter.ksg.harvard.edu/files/iaeaverification.pdf (accessed 20 March 2017).

147 "Security" here means the physical control over relevant substances and facilities, as distinct from safety programmes to reduce the risk of accidents and incidents at facilities.

148 Conversely, the successful elimination of WMD from a crisis region can have a positive impact on the security calculations of other states: see "Peres: Israel Will Consider Joining Chemical Weapons Ban Treaty" (see note 122).

149 Cf. Krutzsch et al., "Issues Raised" (see note 48), 697.

and other practical measures. As a first step, states parties and international organisations should systematically analyse experiences gained during missions in areas of limited statehood.[150] To date, lessons-learned exercises have been primarily case-, topic- or organisation-specific. A broader exchange of experiences could make it easier to draw more general conclusions from the various missions.

Non-proliferation organisations usually operate on the basis of standard operating procedures. Foresight exercises could be useful in continually evaluating proliferation risks and preparing for the unexpected.[151] International organisations should also include non-state parties in such monitoring activities. There are precedents for such activities. The Comprehensive Nuclear-Test-Ban Treaty Organisation (CTBTO) monitors and analyses North Korea's nuclear tests. And the OPCW had already gathered information about Syria's chemical weapons programme before the country's accession to the CWC, thus preparing itself for a mission there.[152]

The OPCW wants to improve its internal contingency planning for crisis operations, so as to be in a position to manage more than one chemical weapons exigency simultaneously.[153] It also wants to develop a "surge capacity" to be able to conduct challenge or special inspections under CWC rules more quickly or to respond to a UN request faster.[154] This should indeed be prioritised because missions in crisis regions absorb substantial resources: of all OPCW inspections conducted in 2014, around 26 percent were carried out to verify Syria's chemical weapons programmes; in 2015 that figure was about 18 percent.[155] The OPCW has also established a core group of inspectors, who maintain a high level of training and would be rapidly deployable in a crisis. A core group of senior officials, which prepared and took important decisions during the Syria mission, could serve as a model for similar units in other organisations.[156] The success of the Declaration Assessment Team should trigger discussions on how compliance reports could also be checked more quickly and comprehensively in other states for which the standard verification procedures are considered inadequate.[157] Inspection procedures for suspicious facilities which were successfully used in Syria could either become part of routine operations or they could be useful for future CWC challenge inspections.[158]

Likewise, it would be sensible to develop flexible contingency plans, based on an inventory of existing competencies and capabilities in international organisations and states.[159] This mapping could then be used to draw up generic checklists of requirements for carrying out operations to control WMD in areas of limited statehood.

Exercises are an especially important (but unfortunately costly) instrument for preparing missions in crisis regions. This is particularly true of the UN Secretary-General Mechanism, which has no permanent inspectorate, but instead selects inspectors from national lists of experts.[160]

Ideally, the international community would maintain at its disposal institutional capacities which would be available in a crisis situation to swiftly and

150 Cf. Bleek et al., "Elimination of Weapons of Mass Destruction" (see note 9), 21.
151 Cf. Trapp, *Lessons Learned* (see note 32), 3–4.
152 The OPCW Director-General stated in an interview that the organisation had begun to prepare for "potential cases" in Syria even before March 2013. It was thus included in the US-Russian consultations on a framework agreement for eliminating Syria's chemical weapons, which was subsequently signed in Geneva on 13 September 2013. At the time, Syria was not yet a state party to the CWC: see Zanders, "'After Syria'" (see note 33); Trapp, *Lessons Learned* (see note 32), 5.
153 Cf. OPCW, *Medium-Term Plan of the Organisation for the Prohibition of Chemical Weapons 2017–2021*, Note by the Technical Secretariat, C-21/S/1 (The Hague, 8 April 2016), para. 16, http://www.opcw.org/fileadmin/OPCW/EC/83/en/ec83s01_c21s01_e_.pdf (accessed 27 April 2017).
154 Cf. idem, *The OPCW in 2025: Ensuring a World Free of Chemical Weapons*, Note by the Technical Secretariat, S/1252/2015 (The Hague, 6 March 2015), para. 18(d), http://www.opcw.org/fileadmin/OPCW/S_series/2015/en/s-1252-2015_e_.pdf (accessed 27 April 2017).
155 Cf. OPCW Executive Council, *Draft Report of the OPCW on the Implementation of the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction in 2014. EC-79/5,* C-20/CRP.1 (The Hague, 9 July 2015), 3; OPCW Executive Council, *Draft Report of the OPCW on the Implementation of the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction in 2015. EC-82/4*, C-21/CRP.1 (The Hague, 14 July 2016), 3.
156 Cf. Trapp, *Lessons Learned* (see note 32), 5, 12.
157 Cf. ibid., 16.
158 Cf. Krutzsch et al., "Issues Raised" (see note 48), 698.
159 See United Nations Office for Disarmament Affairs, *The Secretary General's Mechanism for Investigation of Alleged Use of Chemical, Bacteriological (Biological) or Toxin Weapons. A Lessons-learned Exercise for the United Nations Mission in the Syrian Arab Republic* (New York, May 2015), 9, https://unoda-web.s3-accelerate.amazonaws.com/wp-content/uploads/assets/publications/more/syrian-ll-report/syrian-ll-report-2015.pdf (accessed 20 March 2017).
160 Cf. ibid., 9.

effectively control WMD.[161] Such a pool of equipment and staff could be established so that various organisations could access it when the need arises. So far, however, efforts to exploit synergies between various non-proliferation organisations have failed because of political hurdles and sensitivities.[162]

The OPCW has found an innovative way of making use of funds left over from chemical weapons elimination efforts in Syria. In late 2015, states parties suspended a rule under which a cash surplus had to be returned to treaty members. Instead, they established a Special Missions Fund, into which those funds will now flow as a reserve for financing unforeseen activities.[163]

In general, such preventative measures are politically unpopular because decision-makers are reluctant to earmark funds for emergencies that may never actually occur. The UN Security Council could create stronger obligations for states to make such resources available by encouraging better prevention and contingency planning. It could base such a requirement on Resolution 1540, which obliges all states to take measures to prevent terrorists from gaining control over WMD.[164]

The Working Group on Preventing and Responding to Weapons of Mass Destruction Attacks of the United Nations Counter-Terrorism Implementation Task Force's (CTITF) is a further reference point for efforts to strengthen the contingency planning mandate of non-proliferation regimes. The UN Secretary-General created CTITF in 2005 to better connect the activities of 38 multilateral organisations and institutions which have relevant skills in terrorism prevention and counter-terrorism.[165] The OPCW and IAEA jointly chair the task force.

Finally, good contingency planning should also address the difficult issue of when conditions exist for ending the special treatment of an inspected state.[166]

Including Stakeholders

A study commissioned by the US Department of Defense looking at the challenges of WMD disarmament in crisis zones concluded that "[s]tate-centric international legal instruments that provide a basis for international engagement may be irrelevant where the actors in question are not parties."[167] However, this argument does not capture the fact that international organisations can hardly avoid interacting with non-state groups during missions in crisis zones.[168]

Politically, such cooperation is difficult since non-state groups can at the same time be a spoiler or a governance partner. Cooperating with armed non-state actors who control a specific territory poses a dilemma: such cooperation can elevate the political status of such groups, which in the long-term can complicate conflict resolution.[169] Disputes about the legal status and political legitimacy of such actors frequently complicate interactions. The principle of non-interference in a state's internal affairs can also stand in the way of cooperation with such groups.

Arms control in areas of limited statehood has so far been insufficiently debated from the perspective of

161 The OPCW has also set up a Rapid Response Action Team, intended to support member states in case of a terrorist attack using chemical weapons: see OPCW Technical Secretariat, *Establishment of a Rapid Response Assistance Team*, S/1381/2016 (The Hague, 10 May 2016), http://www.opcw.org/fileadmin/OPCW/S_series/2016/en/s-1381-2016_e_.pdf (accessed 28 November 2016).

162 Cf. Trevor Findlay and Oliver Meier, *Exploiting Synergies between Nonproliferation Verification Regimes: A Pragmatic Approach. Paper Presented at the International Safeguards Symposium: Verification and Nuclear Material Security*, Vienna, 29 October – 2 November 2001, *IAEA-SM-367/15/06*, http://www-pub.iaea.org/MTCD/publications/PDF/ss-2001/PDF%20files/Session%2015/Paper%2015-06.pdf (accessed 20 March 2017).

163 See OPCW, *Establishment of a Special Fund for OPCW Special Missions and Withholding of the Distribution of the Cash Surplus for 2013*, C-20/DEC.11 (The Hague, 3 December 2015), http://www.opcw.org/fileadmin/OPCW/CSP/C-20/en/c20dec11_e_.pdf (accessed 25 November 2016).

164 Cf. United Nations Security Council, *Resolution 1540 (2004)*, S/RES/1540 (2004), (New York, 28 April 2004).

165 However, the Working Group's recommendations mainly refer to a better implementation of international obligations via national implementation legislation. The group also recommends intensified cooperation with a view to preparing for crises arising from CBRN attacks: see United Nations Counter-Terrorism Implementation Task Force (CTITF), *Interagency Coordination in the Event of a Terrorist Attack Using Chemical or Biological Weapons or Materials. Report of the Working Group on Preventing and Responding to Weapons of Mass Destruction Attacks* (New York, August 2011), http://www.opcw.org/fileadmin/OPCW/PDF/CTITF_2011_Report.pdf (accessed 20 March 2017).

166 Cf. Trapp, *Lessons Learned* (see note 32), 11.

167 See Hersman, "Strategic Challenges" (see note 27), 39.

168 Trapp, *Lessons Learned* (see note 32), 20ff.

169 Ulrich Schneckener, *Spoilers or Governance Actors? Engaging Armed Non-State Groups in Areas of Limited Statehood*, SFB-Governance Working Paper Series, 21 (Berlin, October 2009), 8, 18, http://www.sfb-governance.de/publikationen/working_papers/wp21/SFB-Governance-Working-Paper-21.pdf (accessed 20 March 2017).

how international law should evolve so that groups which find themselves at the "mezzanine"[170] level between the nation-state and the population can be better integrated. International law contains elements which can be starting points for a structured discussion on the conditions under which disarmament agencies should interact with non-state groups. Thus, in specific situations, the Geneva Convention holds armed non-state actors engaged in non-international armed conflict responsible for respecting the norms and rules of humanitarian international law.[171]

Generic criteria for dealing with non-state actors would offer another possibility for lowering the political hurdles for cooperation with such actors in the context of disarmament activities. Such criteria could be applied when arms non-state groups control a specific territory for extended periods of time and are in principle willing to cooperate. A list of criteria that would exclude any prospect for cooperation (e.g. if the group had been involved in crimes punishable under the ICC statute) could help put such decisions on a less subjective basis. The heads of relevant disarmament agencies or the UN Secretary-General could be authorised in advance to establish contacts with representatives of relevant groups, whenever relevant conditions are met.

It is also important to improve contacts with organisations that can influence the mission or improve public support for it. The OPCW, for instance, underestimated the strength of the NGO protests against the hydrolysis of chemical warfare agents onboard a US Navy transport ship and against the transshipment of Syrian warfare agents in an Italian port.[172]

Conversely, it might be worth considering giving (certain) NGOs a way to initiate international investigations into violations of existing prohibitions on the possession or use of WMD. The UN Security Council can already invite NGOs and individuals to testify under the so-called "Arria formula".[173] In 2015, for example, Syrian doctors and NGOs powerfully described to the Council the impact of chemical weapons attacks on the civilian population.[174]

Boosting the Role of the Security Council

If a disarmament mission to an area of limited statehood is to succeed, the most important prerequisite is support by a unified international community. First and foremost, the UN Security Council needs to live up to its responsibility for maintaining international peace and security. The Council is also a central venue for establishing the attitudes of important states and, where necessary, creating unity among them:

- Under Article 103, obligations arising from of the UN Charter shall prevail over obligations stemming from any other international agreement.[175]
- The Security Council can legitimise measures taken by individual member states (as it did in Libya in 2011). Moreover, any measures decided under UN Charter Chapter VII (Action with Respect to Threats to the Peace, Breaches of the Peace and Acts of Aggression) can be backed up by sanctions.[176]
- The Security Council can take decisions more quickly than consensus-seeking, multilateral non-proliferation regimes.
- As a central authority and clearing house, the Security Council can encourage or legitimise cooperation between international organisations.[177] For

170 Michael Crawford and Jami Miscik, "The Rise of the Mezzanine Rulers", *Foreign Affairs*, (November/December 2010), http://www.foreignaffairs.com/articles/2010-10-19/rise-mezzanine-rulers (accessed 20 March 2017).
171 One condition for applying the rules of humanitarian international law is that the groups in question must have the capacity to implement them: see Krieger, *A Turn to Non-State Actors* (see note 64), 8–9.
172 See Tom Kington, "Protests Grow in Italy as Syrian Chemical Weapons Are Shipped to Calabria Port", *The Telegraph*, 1 July 2014, http://www.telegraph.co.uk/news/worldnews/europe/italy/10938708/Protests-grow-in-Italy-as-Syrian-chemical-weapons-are-shipped-to-Calabria-port.html (accessed 11 December 2016).
173 See United Nations Security Council, *Background Note on the 'Arria-Formula' Meetings of the Security Council Members* (New York, 2002), http://www.un.org/en/sc/about/methods/bgarriaformula.shtml (accessed 24 June 2015).
174 See Somini Sengupta, "*U.N. Security Council Sees Video Evidence of a Chemical Attack in Syria", The New York Times*, 16 April 2016, http://www.nytimes.com/2015/04/17/world/middleeast/un-security-council-sees-video-evidence-of-a-chemical-attack-in-syria.html?_r=1 (accessed 20 March 2017).
175 *Charter of the United Nations* (New York, 1945), http://www.unric.org/en/charter. The Security Council used this power to legitimise the transfer of Syria's chemical weapons: see Krutzsch et al., "Issues Raised" (see note 48), 699.
176 For example, the elimination of Syria's and Libya's chemical weapons (Resolutions 2118 and 2298, respectively) were decided under Chapter VII: see Zanders, "Hybrid Disarmament Framework" (see note 15).
177 An episode from the disarmament of Libya's chemical weapons demonstrates the crucial importance of this clearing house function. The destruction of Libya's mustard gas stocks had to be interrupted in early 2011 because of a faulty component at a destruction facility. The necessary spare part

example, the Council can reduce political problems arising from different memberships of relevant organisations.

The Security Council's role in non-proliferation has steadily grown since 1992, when it stated for the first time that the proliferation of WMD constitutes a threat to international peace and security – and thus declared itself competent to address the issue.[178] Since the attacks of 11 September 2001, the Council has imposed more and more sanctions in response to violations of non-proliferation rules.[179] And with the adoption of Resolution 1540 in April 2004, it made the implementation of measures to control proliferation-relevant technologies binding on all member states. As the final authority of non-compliance with non-proliferation norms and rules, the Security Council has condemned such violations by Iraq, Iran and North Korea.

Some observers take a critical view of the Security Council's growing influence on the interpretation and adaptation of multilateral treaties, since states parties of the relevant regimes should decide on the development of non-proliferation norms and procedures.[180] It would therefore be sensible to tie Security Council decisions more closely to multilateral non-proliferation regimes.

For example, the Security Council could compel all states to refrain from commenting unilaterally on ongoing investigations into alleged uses of WMD.

A more ambitious proposal is to make better use of the UN Secretary-General Mechanism to verify compliance with the BWC.[181] There have even been discussions on establishing a permanent UN inspectorate to investigate nuclear, biological and chemical weapons programmes.[182] Legal and political hurdles would probably make such a global verification instrument very difficult to realise. Nevertheless, upgrading the UN Secretary-General Mechanism might be a viable, pragmatic alternative.

The Role of Germany

For several reasons, it is in Germany's interest that measures to control WMD in areas of limited statehood become more effective. The proliferation of nuclear, biological and chemical weapons – especially to terrorist groups – poses a risk to Germany's national security. Proliferation also undermines the international order.

Middle powers such as Germany bear a special responsibility to strengthen the international order. They have significant financial, personnel and technical capacities for providing practical support to non-proliferation regimes. Additionally, Germany possesses a high degree of international political legitimacy and credibility, which is, *inter alia*, based on its commitment to disarmament, arms control and non-proliferation. These factors facilitate German efforts to find partners who are also interested in stabilising and improving the international order.

Germany supports efforts to control WMD in areas of limited statehood in many different ways. For instance, Berlin took on political responsibility by seconding a German diplomat to be deputy head of the JIM. It also provides practical assistance, for example by making available a destruction facility for the elimination of Libya's chemical weapons precursors as well as dangerous substances produced by the hydrolysis of Syrian mustard gas.[183] German laboratories also analysed Syrian chemical weapons. In Libya, Germany participated in the construction of a facility

could not be imported because it was listed under the sanctions imposed by the Security Council in March 2011: see Terrell et al., "Eliminating Libya's WMD Programs" (see note 16), 37.

178 United Nations Security Council, *Note by the President of the Security Council*, S/23500 (New York, 31 January 1992).

179 Cf. Michael Brzoska, "The Role of Sanctions in Non-proliferation", in *Arms Control in the 21st Century*, ed. Meier and Daase (see note 115), 123–45 (129–132).

180 Cf. Harald Müller, Alexis Below and Simone Wisotzki, "Beyond the State. Nongovernmental Organizations, the European Union and the United Nations", in *Norm Dynamics in Multilateral Arms Control. Interests, Conflicts, and Justice*, ed. Harald Müller and Carmen Wunderlich (Athens, 2013), 296–336; Faiza Patel, "*Syria, the Security Council, and the Chemical Weapons Convention: a Reply to Jens Iverson*", *Lawfare (online),* 4 November 2013, http://www.lawfareblog.com/2013/11/syria-the-security-council-and-the-chemical-weapons-convention-a-reply-to-jens-iverson/ (accessed 26 May 2015).

181 However, non-aliged states and others have regularly rejected such proposals because they fear a loss of sovereignty: see e.g. Trevor Findlay, "Verification and the BWC: Last Gasp or Signs of Life?", *Arms Control Today* 36, no. 7 (September 2006): 12–16, http://www.armscontrol.org/act/2006_09/BWCVerification (accessed 25 November 2016).

182 Cf. Trevor Findlay, *A Standing United Nations Verification Body: Necessary and Feasible*, Compliance Chronicles, 1 (*Ottawa,* December 2005), https://carleton.ca/npsia/wp-content/uploads/CC1.pdf (accessed 20 March 2017).

183 Destruction took place at the GEKA facility in Munster, which is operated by the German Federal government. The same company also destroyed Libyan chemical weapons precursors in 2016.

to destroy chemical weapons; in Iraq, it is likewise involved in the elimination of chemical weapons.[184] Berlin has held exercises and training courses for UN experts who can be deployed under the UN Secretary-General Mechanism, and has thus contributed to further developing these instruments. The Federal Government has also provided logistical support for WMD control missions, for instance by flying experts and inspectors to and from Libya.

However, the crises of the past few years have also demonstrated limits of Germany's support and engagement. Like other EU states, Germany was not prepared to host a destruction facility for Syrian chemical weapons on its own territory. Politically, Germany has also rarely been a driving force of efforts to improve WMD control. One explanation for this lack of ambition is the EU's overall paralysis on many questions of disarmament, arms control and non-proliferation.

However, if the United States continues to detach itself from the international order it will become increasingly important that Germany supports the disarmament agenda financially, politically and practically. Few states have the capacities Germany does. Berlin could certainly still increase its efforts, for instance by shifting resources from the G7's Global Partnership Against the Spread of Weapons and Materials of Mass Destruction towards efforts to control WMD in areas of limited statehood.[185]

The German Federal Foreign Office emphasises the importance of good contingency planning. Germany's foreign policy is founded in part on the realisation that the crisis is "not an exception to the rule within globalisation", but rather a "permanent epiphenomenon, sometimes even a product of globalisation". Simultaneously Germany views "multilateral treaties and mechanisms" in the field of non-proliferation, arms control and disarmament as an indispensable contribution to successful regulatory policy.[186] Institutionally, however, disarmament and crisis prevention are frequently kept separate: disarmament is primarily treated in the Foreign Ministry's new Directorate-General for International Order, the United Nations and Arms Control, whereas crises are addressed in the equally new Directorate-General S (Crisis Prevention, Stabilisation and Post-Conflict Reconstruction). With a view to future challenges of WMD control, it would be useful to enhance connections between these two departments and to bring in existing expertise from the Federal Ministry of Defence.

It remains difficult for Germany to find partners for joint initiatives to strengthen arms control. Germany's attempt to give NATO a greater role in non-proliferation, disarmament and arms control has stalled (at best) since the Ukraine crisis.[187]

The EU, in 2003 adopted the European Security Strategy and, in parallel, the "EU strategy against proliferation of Weapons of Mass Destruction". In both documents, the EU positioned itself as a driving force in further developing global non-proliferation instruments. The successor document, the EU Global Strategy presented in 2016, does not contain any ambitious goals on disarmament, arms control or non-proliferation.[188]

The EU will nevertheless remain Germany's preferred and most important operational framework for arms control. Berlin could therefore suggest that the EU develop a follow-up document to the 2003 non-proliferation strategy, much of which is now obsolete. In this context, discussions might also be initiated on how the EU can contribute more effectively to WMD control in areas of limited statehood.

Finally, the German Federal Government could use the German presidency of the G20, the group of most important industrialised and emerging nations, to promote greater agreement on the need to strengthen non-proliferation regimes. Among the G20 are global players that can shape policy and might be potential partners in developing multilateral instruments.

184 Cf. German Federal Foreign Office, *Übereinkommen über das Verbot chemischer Waffen (CWÜ)*, (Berlin, 8 January 2016), http://www.auswaertiges-amt.de/DE/Aussenpolitik/Friedenspolitik/Abruestung/BioChemie/Verbot-C-Waffen_node.html (accessed 16 December 2016).

185 Cf. German Federal Foreign Office, *Die Globale Partnerschaft gegen die Verbreitung von Massenvernichtungswaffen* (Berlin, 16 February 2015), http://www.auswaertiges-amt.de/DE/Aussenpolitik/GlobaleFragen/G8_G20_Gestaltungsmaechte/G8/Globale-Partnerschaft-MVW_node.html (accessed 16 December 2016).

186 German Federal Foreign Office, *Review 2014* (see note 7), 8.

187 Cf. Oliver Meier and Simon Lunn, "Trapped: NATO, Russia, and the Problem of Tactical Nuclear Weapons", in *Arms Control Today*, *no. 1/2* (January and February 2014): 18–24, http://www.armscontrol.org/act/2014_01-02/Trapped-NATO-Russia-and-the-Problem-of-Tactical-Nuclear-Weapons (accessed 25 April 2014).

188 The EU's Global Strategy principally addresses non-proliferation instruments from the perspective of expanding existing rules and norms: see *Shared Vision, Common Action: A Stronger Europe. A Global Strategy for the European Union's Foreign And Security Policy* (Brussels, June 2016), 41–42, http://eeas.europa.eu/top_stories/pdf/eugs_review_web.pdf (accessed 20 March 2017).

Abbreviations

BWC	Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction [= Biological Weapons Convention]
CTBTO	Comprehensive Nuclear-Test-Ban Treaty Organization
CTITF	(United Nations) Counter-Terrorism Implementation Task Force
CWC	Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction [= Chemical Weapons Convention]
DAT	Declaration Assessment Team
FFM	Fact Finding Mission
GPS	Global Positioning System
IAEA	International Atomic Energy Agency
ICC	International Criminal Court
IS	Islamic State
JIM	Joint Investigative Mechanism
NGO	Non-Governmental Organisation
NPT	(Nuclear) Non-Proliferation Treaty
OECD	Organisation for Economic Co-operation and Development
OPCW	Organisation for the Prohibition of Chemical Weapons
UNDSS	United Nations Department of Safety and Security
UNITAR	United Nations Institute for Training and Research
UNMOVIC	United Nations Monitoring, Verification and Inspection Commission
UNODA	United Nations Office for Disarmament Affairs
UNOPS	United Nations Office for Project Services
UNOSAT	Operational Satellite Applications Programme
UNSCOM	United Nations Special Commission
UNSMIL	United Nations Support Mission in Libya
WMD	Weapon(s) of Mass Destruction